

COMPONENT MAINTENANCE MANUAL WITH IPL

# STATIONARY CYLINDER ASSEMBLY 801307 SERIES

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#### 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

#### RECORD OF REVISIONS

REV NO.	ISSUE DATE	DATE	BY	REV NO.	ISSUE	DATE	BY
1 2 3 4	Feb 15/72 Jan 30/76 Apr 1/82 Apr 30/85						
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#### 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

### RECORD OF TEMPORARY REVISIONS

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#### 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

### SERVICE BULLETIN LIST

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## 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

#### LIST OF EFFECTIVE PAGES

Insert latest revised pages, destroy superseded pages. \*The asterisk indicates pages revised or added by the current revision.

SUBJECT	PAGE	DATE
Title Record of Revisions Record of Temporary Revisions Service Bulletin List List of Effective Pages	*T-1 *RR-1 TR-1 SB-1 *LEP-1 *LEP-2	Apr 30/85 Apr 30/85 Apr 1/82 Apr 30/85 Apr 30/85
Table of Contents Introduction	T/C-1 INTRO-1 *INTRO-2	Apr 1/82 Apr 1/82 Apr 30/85
Description and Operation	1 2 *3	Apr 1/82 Apr 1/82 Apr 30/85
	*4 5 6	Apr 1/82 Apr 1/82 Blank
Testing and Fault Isolation	*101 *102 *103	Apr 30/85 Apr 30/85 Apr 30/85
	*104 *105	Apr 30/85 Apr 30/85
	*106 *107 *108	Apr 30/85 Apr 30/85 Blank
Disassembly	*301 *302 303	Apr 30/85 Apr 30/85 Apr 1/82
Cleaning	304 *401 402	Apr 1/82 Apr 30/85 Apr 1/82
Check	403 *404 *501	Apr 1/82 Apr 30/85 Apr 30/85
Repair	502 *601 *602	Apr 1/82 Apr 30/85 Apr 30/85
	*603 *604 *605 *606	Apr 30/85 Apr 30/85 Apr 30/85
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## BD1307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

### LIST OF EFFECTIVE PAGES (CONT'D)

SUBECT	PAGE	DATE
Assembly	<b>*701</b>	Apr 30/85
	<b>*702</b>	Apr 30/85
	<b>*703</b>	Apr 30/85
	<b>*704</b>	Apr 30/85
	<b>★705</b>	Apr 30/85
	<b>*706</b>	Apr 30/85
	<b>*707</b>	Apr 30/85
	<b>*708</b>	Blank
Fits and Clearances	<b>*801</b>	Apr 30/85
	802	Blank
Special Tools, Fixtures and	<b>*901</b>	Apr 30/85
Equipment	<b>*902</b>	Apr 30/85
Illustrated Parts List	<b>±1001</b>	Apr 30/85
	1002	Apr 1/82
	1003	Apr 1/82
	1004	Apr 1/82
	1005	Apr 1/82
	1006	Apr 1/82
	*1007	Apr 30/85
	*1008	Apr 30/85
•	*1009	Apr 30/85
	*1010	Apr 30/85
	1011	Apr 1/82
	1012	Apr 1/82
	1013	Apr 1/82
	1014	Blank

## HODE

#### 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

#### TABLE OF CONTENTS

SUBJECT	PAGE
Description and Operation Testing and Fault Isolation Automatic Test Requirements (Atlas) (Not Applicable)	1 101 201
Disassembly	301
Cleaning	401
Check	501 601
Repair Assembly	701
Fits and Clearances	801
Special Tools, Fixtures and Test Equipment	901
Illustrated Parts List	1001

## IIII

## BO1307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

#### STATIONARY CYLINDER ASSEMBLY

#### INTRODUCTION

This manual establishes the proper maintenance procedures which shall be followed by user maintenance, overhaul and service personnel when performing any type of service on the 801307 Stationary Cylinder Assembly described herein.

It is the primary intent of this manual:

- a. To specify proper safety regulations to be followed during performance of service on oxygen equipment used in aviation applications.
- b. To establish proper sequence of operations to be performed on the defined equipment.
- c. To provide the user with the data necessary to properly maintain, check, test and repair the equipment.

The following WARNINGS are presented to inform the user of this manual of the requirements which shall be adhered to when performing service procedures on this equipment. Additional WARNINGS will be found in the procedural steps in the manual.

WARNING:
ANY SERVICE OR OVERHAUL PERFORMED ON THIS APPARATUS
SHALL BE DONE ONLY BY THOSE FACILITIES EXPERIENCED IN,
OR BY PERSONNEL KNOWLEDGEABLE IN AVIATION OXYGEN
EQUIPMENT. IF NONE ARE KNOWN, CONTACT SCOTT AVIATION
OR ITS DISTRIBUTORS FOR NAMES OF AUTHORIZED SERVICE
CENTERS.

WARNING:

ALL PROCEDURES DESCRIBED IN THIS MANUAL SHALL BE PERFORMED IN AN AREA FREE OF OIL, GREASE, FLAMMABLE SOLVENTS OR OTHER COMBUSTIBLE MATERIALS. SUCH MATERIALS, AS WELL AS DUST, LINT, AND FINE METAL FILINGS ARE ALL POTENTIAL COMBUSTIBLES WHICH MIGHT, WHEN EXPOSED TO OXYGEN UNDER PRESSURE IGNITE AND RESULT IN AN EXPLOSION AND/OR FIRE.

WARNING: DO NOT ALLOW OIL, GREASE, FLAMMABLE SOLVENTS, OR OTHER COMBUSTIBLE MATERIALS TO COME IN CONTACT WITH PARTS THAT WILL BE EXPOSED TO PRESSURIZED OXYGEN. SUCH MATERIALS, AS WELL AS DUST, LINT, AND FINE METAL FILINGS ARE ALL POTENTIAL COMBUSTIBLES WHICH MIGHT, WHEN EXPOSED TO OXYGEN UNDER PRESSURE, IGNITE AND RESULT IN AN EXPLOSION.

## TIME

## 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

Verification	Date
Testing and Fault Isolation	June 8, 1984
Disassembly	June 8, 1984
Assembly	June 8, 1984

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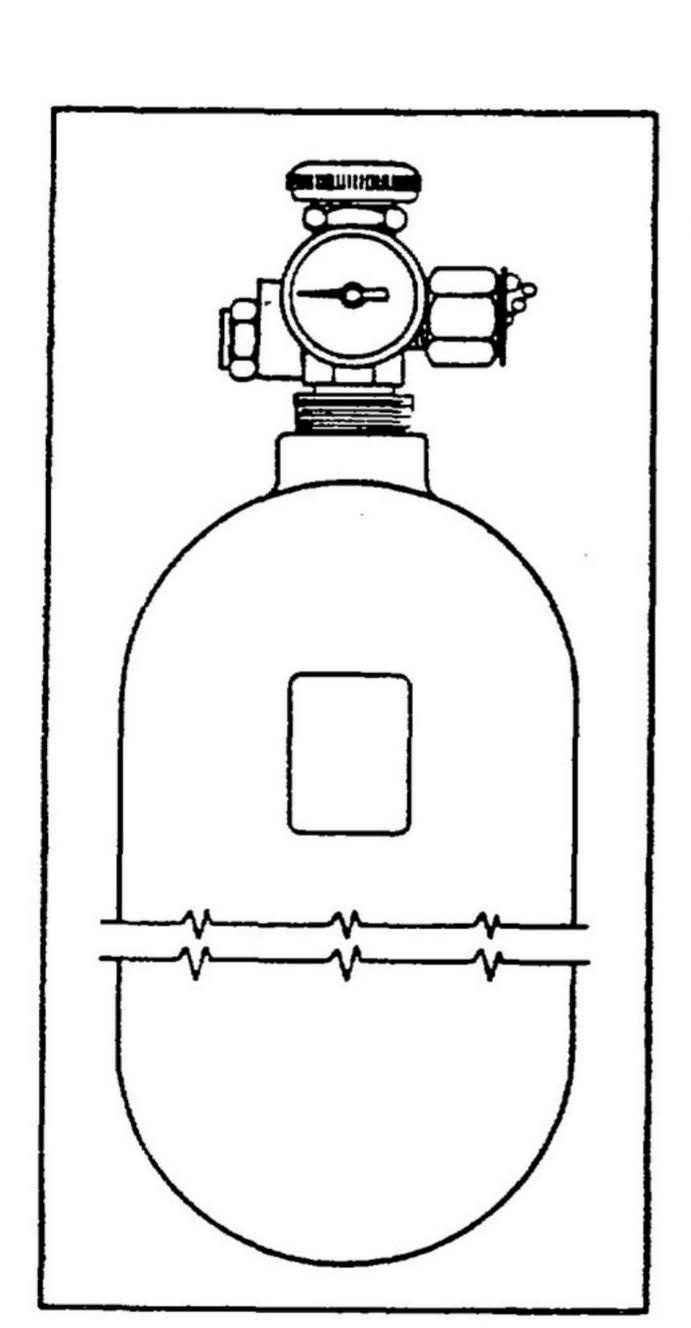
#### 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

#### STATIONARY CYLINDER ASSEMBLY

#### DESCRIPTION AND OPERATION

#### 1. General

A. This manual provides overhaul instructions with illustrated parts list for the 801307 Series, Stationary Cylinder Assemblies (see figure 1). The complete part number of any particular cylinder assembly is an eight place number. An example part number and an explanation of the various numbers which make up a part number are shown in figure 2.



80137 Series Stationary Cylinder Assembly Figure 1

The cylinder assemblies, although similar in design and appearance, are used for various applications. The major applications are to supply oxygen at altitudes where oxygen is required for breathing.

### 2. Purpose of Equipment

- A. To furnish a predetermined supply of oxygen, dependent on the size of the cylinder.
- B. The valves covered in this manual are manually operated "on-off" oxygen valves which are designed with a slow opening feature and incorporate metal-to-metal seating. The valves are nominally rated for 1850 psi service.
- C. To furnish a shut-off valve for turning the oxygen "ON" or "OFF".
- D. To furnish a safety device to prevent over pressurization of oxygen cylinders.
- E. To furnish a gage to visually monitor the pressure of the oxygen supply.

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#### 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

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			115.0	•	115.0	115.0	39.4	•	76.5	•		•				76.5		'n	22.0	lven in	harged to	
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BASIC PART NO.	DESIGNATION		8	5	20	8	70	60	90	20	80	60	2	20	21	22	≈	72	25	NOTE: *	0	Ξ

Leading Particulars of 801307 Series
Figure 2

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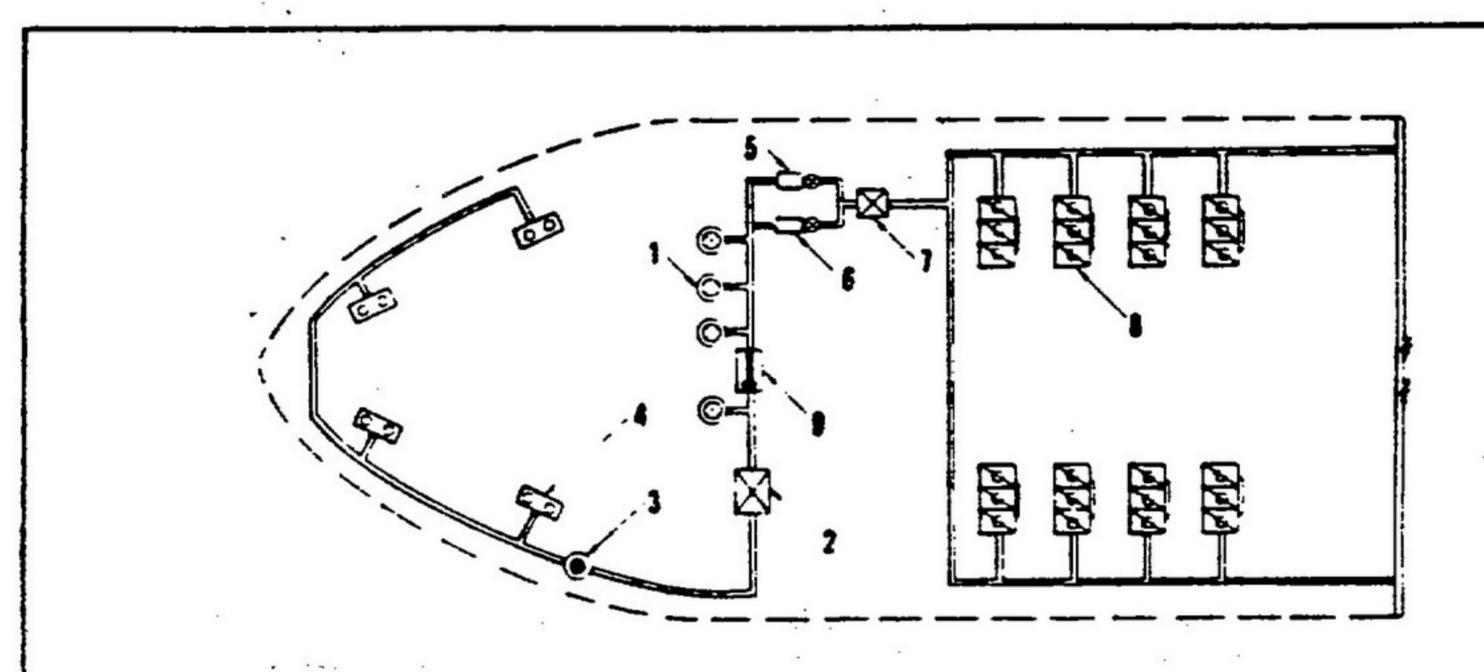
#### 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

#### 3. Typical Installation

A. A typical installation of the cylinder assembly is shown in figure 3. A slow opening cylinder valve assembly is installed on each high pressure oxygen cylinder (1). The valves provide for manual, positive opening and closing of the oxygen system.

#### 4. Operation

A. Operation of all cylinder assemblies is identical. The high pressure oxygen within the cylinder is released at the outlet when the shut-off valve is opened. The oxygen supply is maintained within the cylinder when the shut-off valve is closed.



- 1. HIGH PRESSURE OXYGEN SOURCE WITH SLOW OPENING CYLINDER VALVE ASSEMBLY
- 2. PRESSURE REGULATOR
- 3. LINE VALVE
- 4. DILUTER DEMAND REGULATORS
- 5. ANEROID OPERATED OXYGEN SYSTEM RELEASE VALVE
- 6. ELECTRICALLY OPERATED OXYGEN SYSTEM RELEASE VALVE
- 7. AUTOMATIC CONSTANT FLOW PRESSURE REGULATOR
- B. PASSENGER MASK COMPART-MENT DOOR
- 9. CHECK VALVE

Typical Installation Figure 3

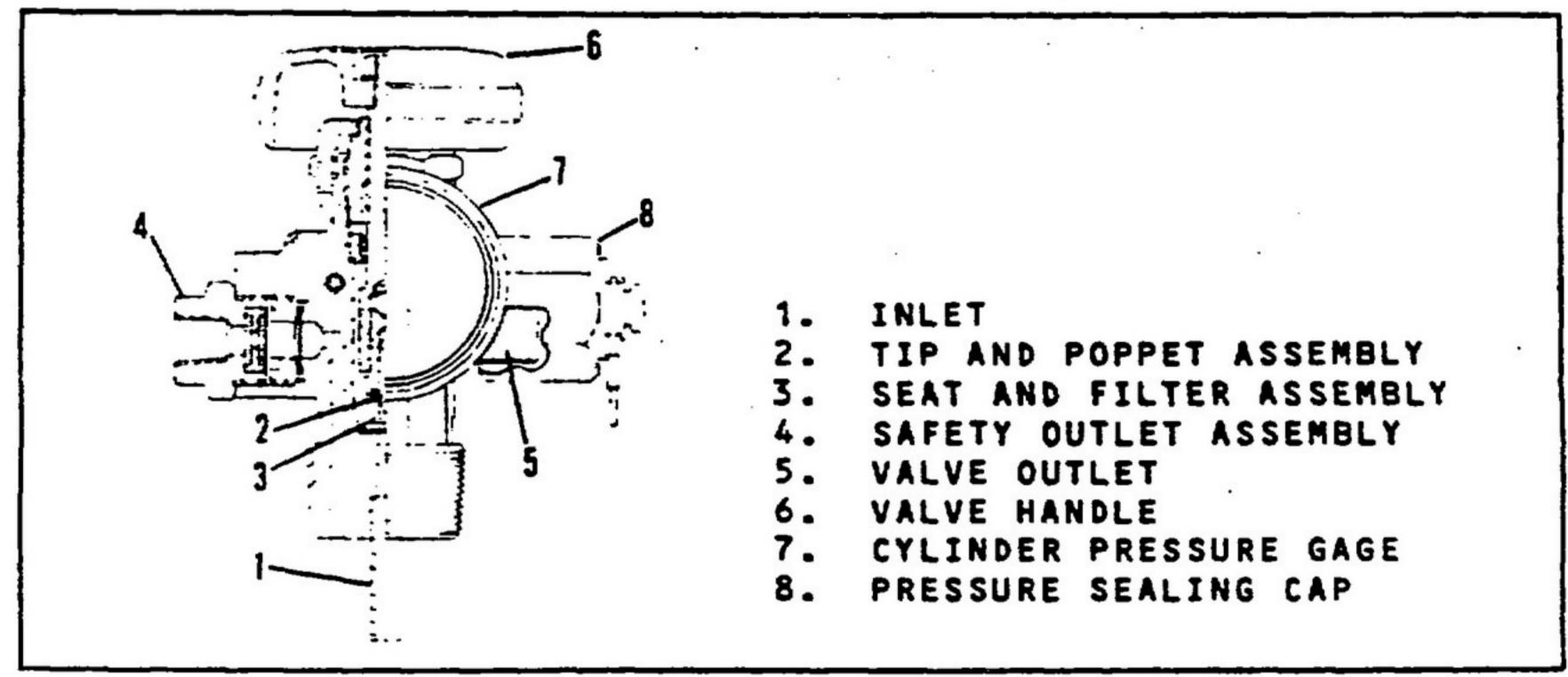
## IIII

#### BD1307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

- B. The cross section illustrated in figure 4 is representative of all the slow opening oxygen cylinder valve assemblies. With the valves installed in a high pressure oxygen cylinder and valve handle (6) closed (full clockwise), the oxygen is contained in the cylinder through the action of tip and poppet assembly (2) and seat and filter assembly (3). When valve handle (6) is opened (full counterclockwise), tip and poppet assembly (2) is raised away from seat and filter assembly (3) thereby allowing oxygen flow to outlet (5). The valves are equipped with safety outlet assemblies (4). The safety outlet assemblies are preset to rupture between 2500-2775 psi in order to vent oxygen in the event of system overpressurization. A cylinder pressure gage (7) is provided to indicate cylinder pressure.
- C. These valves restrict flow only during the initial opening phase, and will prevent a downstream deadended system from being brought up to system pressure too rapidly.

NOTE: Rapid pressurization of a system is adiabatic in nature and may result in a potentially hazardous temperature rise.

As with all valves, it should be opened fully and then backed off 1/4 of a turn. The valve is fully open at approximately 6-1/2 turns.



Oxygen Cylinder Valve Assembly Figure 4

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#### VALVE CHARACTERISTICS:

 Torque to open or close (Maximum) 30 inch pounds (3.4 N.m)

2. Torque to operate

7 inch pounds (.8 N.m) (Approximately)

3. Full open position

6-1/2 turns (Approximately)

4. Permissible leakage across seat with valve closed (internal leakage); with pressure sealing cap torqued in position, permissible external leakage is 5 cm<sup>3</sup>/h.

50 cm<sup>3</sup>/min (Maximum)

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## 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

#### TESTING AND FAULT ISOLATION

Testing

WARNING:

IN ALL PROCEDURES LISTED BELOW, OXYGEN IS SPECIFIED AS THE TEST GAS. WATER PUMPED NITROGEN OR OIL-FREE AIR MAY BE SUBSTITUTED, BUT RESULTS MUST BE CONVERTED PRIOR TO BEING COMPARED WITH THE RESULTS SPECIFIED FOR OXYGEN. DO NOT, UNDER ANY CIRCUMSTANCES, USE OIL PUMPED GAS AS THIS WILL CAUSE CONTAMINATION OF THE VALVE AND TEST EQUIPMENT. OIL, EVEN IN MINUTE QUANTITY, COMING IN CONTACT WITH OXYGEN MAY CAUSE AN EXPLOSION OR FIRE.

NOTE: The equipment required to test the cylinder and valve assemblies is shown in figure 101, and is considered to be standard in oxygen equipment overhaul shops.

NOTE: Table 101 lists the consumable materials required for testing. Equivalent materials may be used.

MATERIAL	DESCRIPTION	MANUFACTURER*	REFER TO PARAGRAPH
0xygen -	MIL-0-27210, Type 1	V07098	All Testing
Rust Inhibiting Leak Test Solution	Sodium Chromate; Scc per gallon of water	V72658	1. G (3)

\*Refer to Illustrated Parts List, paragraph 1.D for Vendor's Codes.

## List of Consumable Materials for Testing

- A. If required, subject the cylinders to hydrostatic testing in accordance with CGA Pamphlet C-1 and Hazardous Materials Regulations of Department of Transportation (DOT), Current Tariff No.
- B. Facilities performing such tests shall hold a current, valid DOT Approval.

#### 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

- C. After reassembly of the 801333 Body and Gage Assembly, perform a proof pressure test in accordance with the following procedure.
  - (1) Install test plug (2, figure 902) in the over-pressure relief port in lieu of the appropriate outlet assembly. (Proof test will rupture safety outlet disc.)
  - (2) Cap the valve outlet, open the valve.
  - (3) Apply 2800 psi to the valve inlet. Observe the body and gage assembly for a period of two minutes, minimum. There shall be no evidence of permanent deformation or damage. Place valve in protective enclosure when performing this test.
  - (4) Relieve the pressure, uncap the outlet and remove the test plug. Replace the test plug with the appropriate outlet assembly per Assembly, step 2.
- D. After reassembly of the 801308 Oxygen Cylinder Valve, perform an internal leak test in accordance with the following procedure.
  - (1) Open the valve, then, using a torque wrench, reclose with a torque not exceeding 60 ± 5 inch pounds (6.8 ± .57 N.m).
  - (2) Apply 1850 -50 psi pressure to the valve inlet (cylinder mounting end) with the valve outlet uncapped.
  - (3) Open valve then reclose with a torque of 30 inch pounds (3.4 N.m) maximum.
  - (4) With a 10-100cc flowmeter attached to the valve outlet, measure leakage which, after stabilization, shall not exceed 50cc/min.
- E. Perform a torque test on the assembled 801308 Oxygen Cylinder Valve in accordance with the following procedure.
  - (1) Close the valve and cap outlet.

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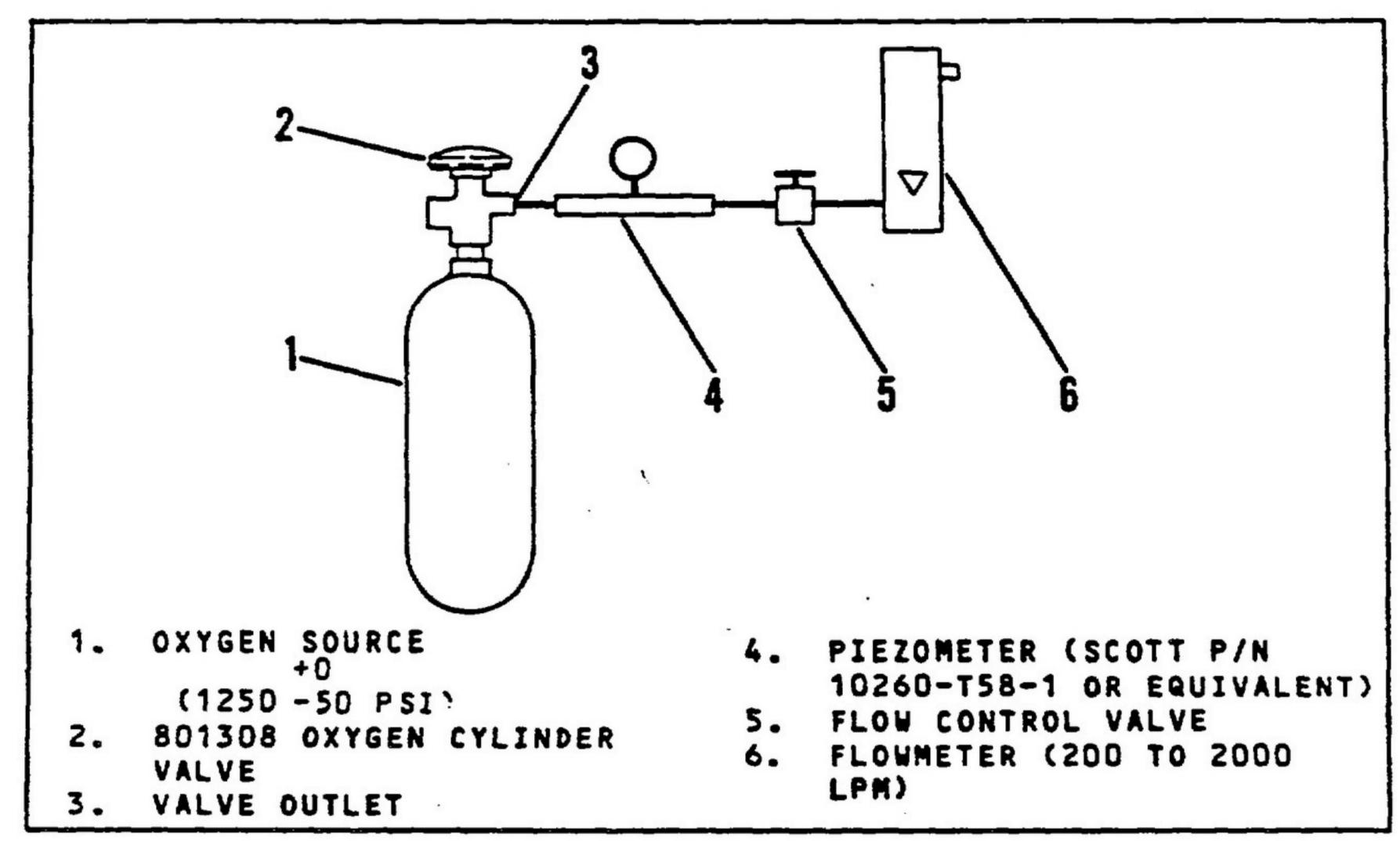
#### 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

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- (2) Apply 1850 -50 psi to the valve inlet.
- (3) Fully open the valve using a torque wrench. This required opening torque shall not exceed 30 inch pounds (3.4 N.m).
- (4) Close the valve with 30 inch pounds (3.4 N.m) and reopen fully. Repeat twice. Force required to open the valve shall not exceed 30 inch pounds (3.4 N.m).
- F. Perform a flow test on the assembled 801308 Oxygen Cylinder Valve in accordance with figure 101 and the following procedure.
  - (1) Connect the oxygen cylinder valve to the test setup illustrated in figure 101.
  - (2) Fully open oxygen cylinder valve (2).
  - (3) Adjust flow control valve (5) for flow of 1000 LPM (NTPD) as read on flowmeter (6). The pressure drop through the valve shall not exceed 200 psi.
  - (4) Complete assembly by referring to Assembly, step 1.T.

## SWII

#### 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL



Flow Test Setup Figure 101

- G. After reassembly of stationary cylinder assembly, perform an external leakage test in accordance with the following procedure.
  - (1) Charge cylinder with oxygen to full operating pressure, at a rate not to exceed 300 psi per minute.
  - (2) Allow cylinder to cool to room temperature and "top-off" if necessary.
  - (3) Cap the valve outlet, remove the bezel and lens from the gage, open valve until approximately half open and submerge valve and cylinder neck in leak test solution.

## IIII

#### 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

- (4) Observe the valve for a period of two minutes. If leakage is apparent, the actual leakage shall be determined and shall be deemed acceptable only if it does not exceed 5 cm<sup>3</sup>/h (0.083 cm<sup>3</sup>/min).
- (5) Cycle the valve (from open to closed to fully open) twice and repeat step (4) with the valve fully open. If leakage is apparent, the actual leakage shall be determined and shall be deemed acceptable only if it does not exceed 5 cc/hour (0.083 cm<sup>3</sup>/min).
- (6) After completion of the test, remove the cylinder and valve from the leak test solution and remove the cap from the outlet. Thoroughly dry the unit with clean, dry, oil-free air, paying particular attention to the interior of the gage.
- (7) Replace the gage lens and bezel.
- (8) Close the valve.
- (9) Store the stationary cylinder assembly for a minimum of 72 hours and repeat steps (3) through (8).

## IIII

# 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

#### 2. Fault Isolation

A. See figure 102 for trouble shooting chart.

TROUBLE	PROBABLE CAUSE	REMEDY			
Improper indication on gage (4, IPL figure 3)	Faulty gage (4, IPL figure 3)	Replace gage			
Leakage between	Faulty seal (18)	Replace seal			
stem (21) and sleeve (16)	Faulty stem (21)	Replace valve stem			
	Faulty washer (20)	Replace washer			
	Loose sleeve (16)	Retorque sleeve			
Leakage at cylinder (17, IPL figure 1)	Damaged cylinder (17, IPL figure 1) threads	Replace cylinder			
neck when oxygen valve assembly is mated with cylinder	Improper application of sealing tape	Reapply sealing tape			
	Damaged threads on oxygen valve (11)	Replace oxygen . valve			
	Faulty valve seat and filter assembly (23A, IPL figure 3)				
	Faulty tip and poppet assembly (22)	Replace tip and poppet assembly			
Leakage at safety outlet assembly	Broken disc (10, 10A, 16, 16A, 24, 24A, 32, 32A, 38, 38A, 48, 48A, 56, 56A, 60, 60A, 66, 66A, IPL figure 2)	Replace disc			
	Loose retainer (9, 15, 23, 31, 37, 47, 55 or 65)	Retorque retainer per Table 801			
	Defective gasket (11, 17, 25, 33, 39, 49, 57 or 67)	Replace gasket			

Trouble Shooting Chart Figure 102 (Sheet 1 of 2)

## TIME

#### 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

TROUBLE	PROBABLE CAUSE	REMEDY
Leakage at gage (4, IPL figure 3) connection	Faulty packings 8, IPL figure 3)	Replace packings
	Loose gage (4)	Torque screws (5) per Table 801

Trouble Shooting Chart Figure 102 (Sheet 2 of 2)

## TIME

## B01307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

#### DISASSEMBLY

NOTE: See Testing and Fault Isolation, to establish the condition of the unit or most probable cause of its malfunction. This is to determine the extent of disassembly required without completely tearing down and rebuilding the unit.

WARNING: COMPLETELY DISCHARGE ALL CYLINDERS PRIOR TO REMOVAL OF VALVE ASSEMBLY.

NOTE: Refer to the "EFFECT CODE" column of the Group Assembly Parts List for the parts applicable to the part number valve assembly being disassembled. Disregard instructions concerning parts that are not used on the valve being disassembled.

- Disassemble any 801307 Series Stationary Cylinder Assembly by unthreading valve (11, IPL figure 1) from cylinder (17). Remove identification plate (10) and label (16) from the cylinder, only if damaged.
- Disassemble the 801308 Oxygen Valve assemblies as follows (see IPL figure 2).
  - A. Remove outlet assembly (7 through 11), if applicable, by removing nut (7) and insert (8). Unthread retainer (9) with disc (10 or 10A) and gasket (11) attached to it, using driver (1 or 3, figure 902). Remove gasket (11, IPL figure 2) and disc (10 or 10A) from retainer (9).
  - B. Remove outlet assembly (13 through 17), if applicable, by removing fitting (13) and insert (14). Unthread retainer (15) with disc (16 or 16A) and gasket (17) attached to it, using driver (1 or 3, figure 902). Remove gasket (17, IPL figure 2) and disc (16 or 16A) from retainer (15).
  - C. Remove outlet assembly (19 through 25), if applicable, and disassemble as follows:
    - (1) Unthread cap assembly (19) from the outlet assembly and remove screw (20).
    - (2) Remove nut (21) and insert (22). Unthread retainer (23) with disc (24 or 24A) and gasket (25) attached to it, using driver (1 or 3, figure 902). Remove gasket (25, IPL figure 2) and disc (24 or 24A) from retainer (23).

## SMII

## 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

- D. Remove outlet assembly (27 through 33), if applicable, and disassemble as follows:
  - (1) Unthread cap assembly (27) from the outlet assembly and remove screw (28).
  - (2) Remove nut (29) and insert (30). Unthread retainer (31) with disc (32 or 32A) and gasket (34) attached to it, using driver (1 or 3, figure 902). Remove gasket (33, IPL figure 2) and disc (32 or 32A) from retainer (31).
  - E. Remove outlet assembly (35 through 39), if applicable, by removing nut (35) and insert (36). Unthread retainer (37) with disc (38 or 38A) and gasket (39) attached to it, using driver (1 or 3, figure 902). Remove gasket (39, IPL figure 2) and disc (38 or 38A) from retainer (37).
  - F. Remove outlet assembly (45 through 49), if applicable, by removing nut (45) and insert (46). Unthread retainer (47) with disc (48 or 48A) and gasket (49) attached to it, using driver (1 or 3, figure 902). Remove gasket (49, IPL figure 2) and disc (48 or 48A) from retainer (47).
  - G. Remove outlet assembly (51 through 57), if applicable, and disassemble as follows:
    - (1) Unthread cap assembly (51) from the outlet assembly and remove screw (52).
    - (2) Remove nut (53) and insert (54). Unthread retainer (55) with disc (56 or 56A) and gasket (57) attached to it, using driver (1 or 3, figure 902). Remove gasket (57, IPL figure 2) and disc (56 or 56A) from retainer (55).
  - H. Remove outlet assembly (59 through 61), if applicable, by removing plug (59) with disc (60 or 60A) and gasket (61) attached to it. Remove gasket (61) and disc (60 or 60A) from plug (59).
  - J. Remove outlet assembly (63 through 67), if applicable, by removing nut (63) and insert (64). Unthread retainer (65) with disc (66 or 66A) and gasket (67) attached to it, using driver (1 or 3, figure 902). Remove gasket (67, IPL figure 2) and disc (66 or 66A) from retainer (65).

## TIME

#### 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

- Disassemble the 801333 Body and Gage Assemblies as follows (see IPL figure 3).
  - A. Remove gage (4) from body and tube assembly (39A, 40A, or 41A) by removing screws (5) and washers (6).
  - B. Remove rings (7), packings (8) and ring (9) from gage (4); unthread guard (10), if applicable.
  - C. Remove plate (11).
  - D. Remove handle (12) by removing nut (13) and washers (14).
  - E. Cut lockwire, unthread and remove retainer (15).
  - F. Back-out sleeve (16) until it is disengaged from body and tube assembly (39A, 40A, or 41A) then pull stem (21) with all components mounted to it, out of body and tube assembly (39A, 40A or 41A).

CAUTION: IF SEAL (18) IS REMOVED FROM STEM (21), IT CANNOT BE REPLACED BY ANOTHER SEAL ALONE.

KIT (42) SHALL BE USED.

G. Remove sleeve (16) from stem (21), then remove guide (17). If replacement of seal (18) is required, slide retainer (19) with seal (18) off stem (21). Press seal (18) out of retainer (19) being careful to avoid marking seal contact surface on interior of retainer (19). If seal does not require replacement, the seal and retainer should be cleaned while assembled on stem (21) being careful not to scratch or mark stem sealing surface. Do not clean by immersion into solvent to avoid trapping solvent in seal (18).

CAUTION: DO NOT MAR STEM (21) WITH DRIFT PIN.

- H. Remove pin (23) from stem (21) using a hammer and drift pin.
- J. Unthread seat and filter assembly (23A) from body and tube assembly (39A, 40A, or 41A).
- K. Remove ball (24) and bearing (25).

## TIME

#### 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

- L. Disassemble cap assembly (32 through 37) using the following procedure.
  - (1) Remove cap assembly (32 through 37) by removing screw (28), fastener (30) and spacer (31).
  - (2) Remove cable (32) from nipple (36) by removing screw (33), fastener (34) and washer (35).

- (3) Separate nipple (36) from nut (37).
- M. Unthread filter assembly (38) from body and tube assembly (39A, 40A, or 41A).

35-21-57

## IIII

## B01307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

#### CLEANING

NOTE: Using the cleaning materials listed in Table 401, perform the cleaning procedures outlined in the following paragraphs. Equivalent materials may be used.

MATERIAL	DESCRIPTION	MANUFACTURER*	REFER TO PARA.
Di-Sanite	Di-Sanite	V44389	1.E.
Phosphoric- Isopropyl	Phosphoric Acid	V70829	1.C.
Mixture	Alcohol (50% of each by Vol)	Note: Purchased separately	
Trichloroe- thane	1,1,1 Trich- loroethane	V71984	1.D. 1.H.(1),(2),(3) 2.B.

\*Refer to Illustrated Parts List, paragraph 1.D for Vendor's Codes.

#### List of Cleaning Materials Table 401

 After inspecting cylinder in accordance with Check, perform the following cleaning procedure:

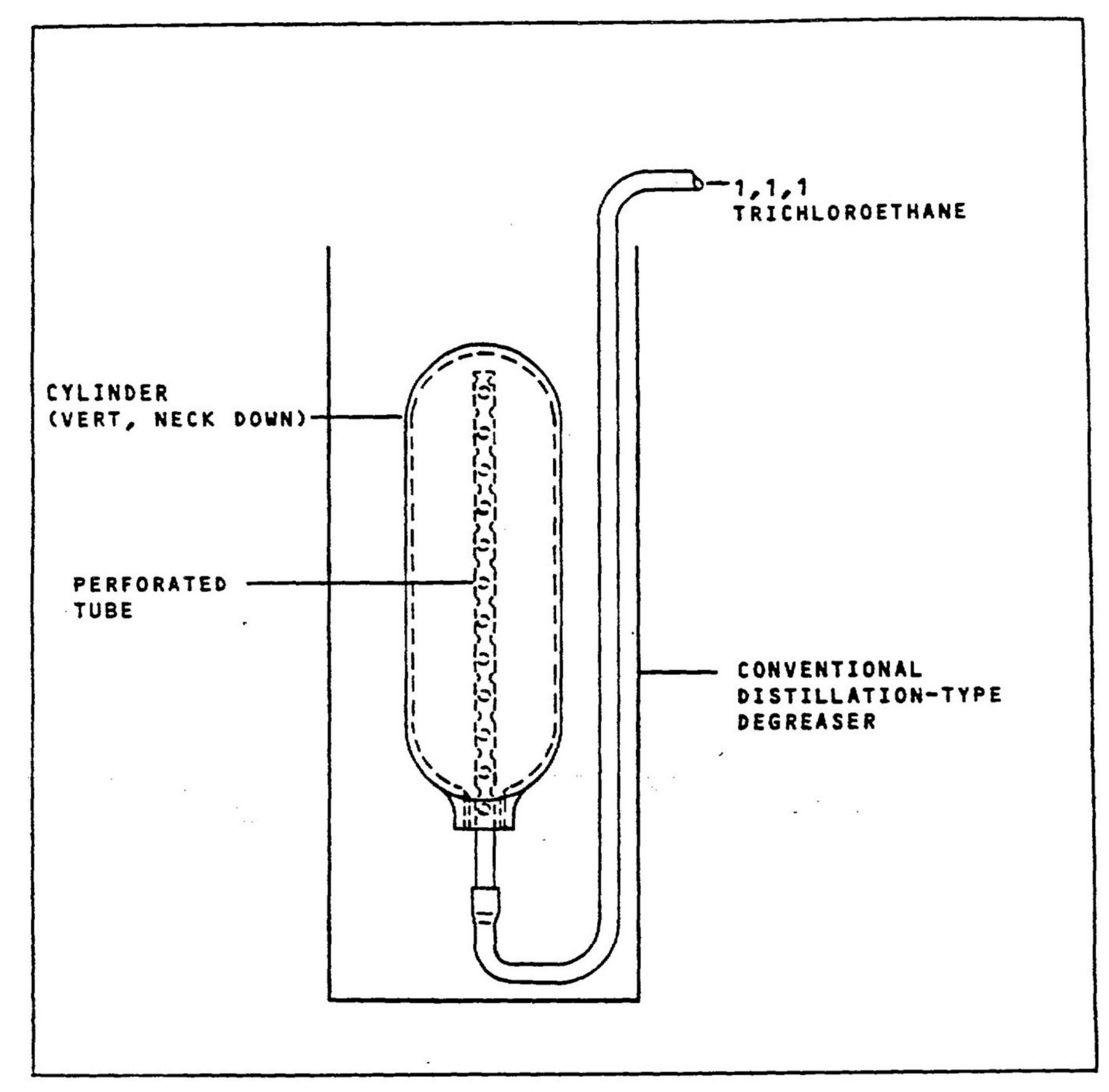
NOTE: This procedure will remove any organic impurities which are soluble in 1,1,1 Trichloroethane.

- A. Wire brush the cylinder neck threads to remove sealing compounds or rust.
- B. Shake out cylinder to remove any loose foreign matter.
- C. Apply a solution (50% by volume of phosphoric acid isopropyl alcohol) by brush to the area wire brushed, exercising care to prevent excessive application from running onto the cylinder.

WARNING: USE 1,1,1 TRICHLOROETHANE IN A WELL VENTILATED AREA ONLY. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN AND INHALATION OF TOXIC VAPORS.

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#### 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL



Cleaning Setup Figure 401

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# B01307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

- D. Utilizing a cleaning setup as illustrated in figure 401, place the cylinder, with neck down, in vertical position over the perforated tube (the diameter and length of the tube will be determined by the particular size of the cylinder being cleaned). Pump 1,1,1 Trichloroethane, slightly below its boiling point, through the tube thoroughly spraying the interior of the cylinder being cleaned for a period of three minutes. Remove cylinder from tube and allow complete drainage of 1,1,1 Trichloroethane into drain.
- E. After completion of step D., and using a cleaning setup similar to the setup illustrated in figure 401, pump a solution of Di-Sanite (8 ounces per each gallon of water), at a temperature of 180°F, through the tube, thoroughly spraying the interior of the cylinder being cleaned for a period of three to five minutes. Accomplishment of step (5) will neutralize any acid constituents and destroy odor.
- F. After completion of step E., and using a cleaning setup similar to the setup illustrated in figure 401, pump water (at city pressure) at 160 to 180°F, through the tube, thoroughly spraying the interior of the cylinder being cleaned for a period of two minutes to remove any traces of alkaline residue.
- G. After completion of step F., and using a cleaning setup similar to the setup illustrated in figure 401, dry the interior of the cylinder with forced air heated to a temperature of 212°F, for a period of three to five minutes.
- H. After completion of step G., and after the cylinder has cooled to room temperature, reinspect the cylinder in accordance with Check.

NOTE: The cleaning process used should be checked initially and periodically as follows:

(1) Pour 50cc of anhydrous, chemically pure, 1,1,1 Trichloroethane into the processed cylinder. Cap and shake well for one to two minutes.

## SOUT

## 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

- (2) Remove cap and pour flushings into a clean Erlenmeyer flask. Distill the 1,1,1 Trichloroethane in a water bath. After the 1,1,1 Trichloroethane has been distilled, examine residue in flask. If oil marks are visible, check cleaning solutions, implements and pressure.
- (3) After completion of steps (1) and (2), and using a cleaning setup similar to the setup illustrated in figure 401, clear all traces of 1,1,1 Trichloroethane from the interior of the cylinder by blowing with dry, clean, oil-free air.
- After inspecting the valve assembly in accordance with Check, perform the following cleaning procedure.

WARNING: DO NOT ALLOW OIL, GREASE, FLAMMABLE SOLVENTS, OR OTHER COMBUSTIBLE MATERIALS TO COME IN CONTACT WITH PARTS THAT WILL BE EXPOSED TO PRESSURIZED OXYGEN. SUCH MATERIALS, AS WELL AS DUST, LINT, AND FINE METAL FILINGS ARE ALL POTENTIAL COMBUSTIBLES WHICH MIGHT, WHEN EXPOSED TO OXYGEN UNDER PRESSURE, IGNITE AND RESULT IN AN EXPLOSION.

A. Remove dirt and foreign particles from equipment by wiping with a clean lint-free cloth, or by blowing with clean oil-free air or nitrogen.

WARNING: USE 1,1,1 TRICHLOROETHANE IN A WELL VENTILATED AREA ONLY. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN AND INHALATION OF TOXIC VAPORS.

- B. Metal parts which come in contact with oxygen and have become contaminated with grease can be cleaned by using a vapor degreasing method with 1,1,1 Trichloroethane. Blow clean and dry with a stream of clean dry, oil-free air.
- C. Non-metallic parts such as silicone and rubber components may be cleaned by using an ultrasonic detergent and water cleaning system. Rinse parts in clean water and dry thoroughly before reassembly.

#### 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

#### CHECK

 Inspect exterior of cylinders for indications of abuse, dents, rust and bulges.

NOTE: The following are references for inspection of cylinders:

- A. Standard for Visual Inspection of Compressed Gas Cylinders Pamphlet C-6.
- B. Standard for Requalification of DOT 3HT Cylinders Pamphlet C-8.

Pamphlets available from Compressed Gas Association, 1235 Jefferson Davis Highway, Arlington, Virginia 22202.

 Inspect neck of cylinders for cracks and distortion or damaged threads.

- Inspect all cylinders for peeling external paint and obscure markings.
- 4. Inspect all high pressure cylinders for last date of hydrostatic test and type. If hydrostatic testing is required, test in accordance with Testing, Step 1.A.
  - NOTE: DOT type 3HT cylinders require hydrostatic retesting every 3 years. DOT type 3A and 3AA cylinders require hydrostatic retesting every 5 years. Under certain usage conditions, DOT type 3A and 3AA cylinders may be retested at 10 year intervals. Refer to the current tariff of the "HAZARDOUS MATERIAL REGULATIONS OF THE DEPARTMENT OF TRANSPORTATON" (49 CFR 170) paragraph 173.34 (e) (15) for eligibility requirements.
- 5. Inspect interior of cylinders for defects which might render the cylinder unsafe.
  - NOTE: Inspect the interior of cylinders with the aid of a small electric light to give complete visibility of interior.
- 6. Inspect the interior of cylinders for rust spots, improper parkerizing, or surface blemishes.

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#### 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

- 7. Inspect valves for cracks, nicks, dents or burrs which might cause malfunction.
- 8. Inspect valve seats for scoring.

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- 9. Inspect all threads of valves for damage.
- 10. Inspect overall condition of all components.

## III

#### B01307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

#### REPAIR

NOTE: Table 601 lists the consumable materials for repair. Equivalent materials may be used.

MATERIAL	DESCRIPTION	MANUFACTURER*	REFER TO PARAGRAPH
Chromic Acid	Chromic Acid	V72658	2.E
Phosphoric Acid	Phosphoric Acid	V70829	2.c
Phosphate	ZnP04	V44389	2.C

<sup>\*</sup>Refer to Illustrated Parts List, paragraph 1.D for Vendor's Codes.

# List of Consumable Materials for Repair Table 601

Replace cylinders that show signs of abuse, dents, bulges, cracks, distortion, damaged threads, and/or defects which might render the cylinder unsafe (refer to Check, steps 1, 2, 3, and 5).

NOTE: DOT 3HT Type cylinders must be discarded at the end of twenty-four years from original test date or 4,38D pressurizations, whichever occurs first.

- 2. Cylinders that require interior protective treatment may be reparkerized as follows: (Refer to Check, step 6.)
  - A. Sandblast cylinders internally and externally using fine grit shot.
  - B. Rinse cylinder in clean water.
  - C. Apply a phosphate coating to the interior of the cylinder either by dipping or spraying. For dip-coating, a three minute minimum dip is recommended; for spray-coating, one minute minimum is recommended.

NOTE: The balanced aqueous solution of phosphoric acid, phosphates, and accelerating agents produce a uniform water insoluble crystalline coating varying from gray to black in color.

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## BO1307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

- D. Rinse cylinder in clean water.
- E. Rinse cylinder in hot chromic acid (140 to 210°F) (60 to 99°C).
  - NOTE: The pH of the chromic acid rinse will be maintained between 2 and 4 by the addition of flake chromic acid of a mixture of chromic and phosphoric acids.
- F. Dry the cylinder by using warm air or a drying oven.
  - NOTE: For maximum corrosion resistance, coating weights of 400 mg/sq. ft. are usually adequate. This coating weight may be reduced to 200 mg/sq. ft. if an activator (titanium salts) is used. The coating weight may be deceptive if loosely adherent deposits are obtained, since loosely adherent deposits give inferior performance. Finely crystalling zinc phosphate coatings provide the best corrosion resistance.
- G. If the exterior finish is removed it must be recoated with 1000 mg/sq. ft. min. phosphate, and primed per MIL-P-8585A, color Y.
- 3. Remark and/or repaint cylinders in accordance with information outlined in figure 2.
- 4. 801308 Oxygen Valve Assembly (see IPL figure 2).
  - A. Repair of parts is not recommended. Replace disc (10, 10A, 16, 16A, 24, 24A, 32, 32A, 38, 38A, 48, 48A, 56, 56A, 60, 60A, 66 or 66A), gasket (11, 17, 25, 33, 39, 49, 57, 61 or 67) and obviously defective parts at overhaul.
  - B. Replace retainer (9, 15, 23, 31, 37, 47, 55 or 65) if its disc has ruptured.

## III

#### BD1307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

C. The following part number 801308-31 Oxygen Cylinder Valves, listed by serial number, do not contain ring (9, IPL figure 3). Install ring (9) at next scheduled overhaul.

SERIAL NUMBER	SERIAL NUMBER	
101 through 119	197	
121 through 124	199 through 201	
126 through 148	205 through 210	
150 through 165	220 through 227	
168 through 173	229 through 234	
175 through 187	240 and 241	
189 and 190	255	
192 through 194		

- 5. 801333 Body and Gage Assembly (see IPL figure 3).
  - A. Repair of parts is not recommended. Replace packings (8), identification plate (11), washer (20) and filter assembly (38).

CAUTION: DO NOT ATTEMPT TO INSTALL SEAL (18) BY
ITSELF. USE SEAL REPLACEMENT KIT (42) ONLY TO
REPLACE SEAL.

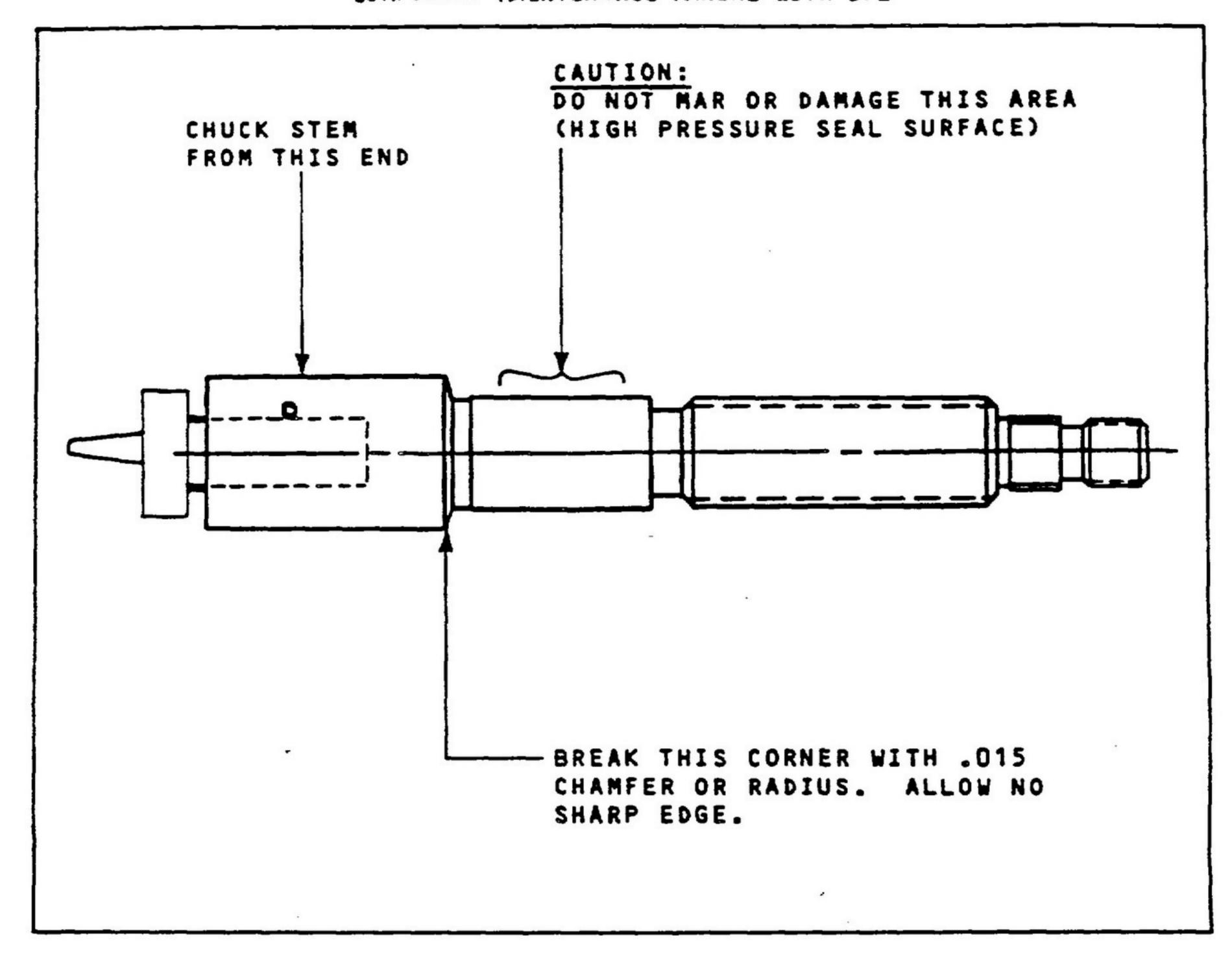
- B. Replace seal (18), only if required, with seal replacement kit (42).
- 6. 801333 Body and Gage Assembly (see IPL figure 3).

WARNING: DO NOT ALLOW OIL, GREASE, FLAMMABLE SOLVENTS, OR OTHER COMBUSTIBLE MATERIALS TO COME IN CONTACT WITH PARTS THAT WILL BE EXPOSED TO PRESSURIZED OXYGEN. SUCH MATERIALS, AS WELL AS DUST, LINT, AND FINE METAL FILINGS ARE ALL POTENTIAL COMBUSTIBLES WHICH MIGHT, WHEN EXPOSED TO OXYGEN UNDER PRESSURE IGNITE AND RESULT IN AN EXPLOSION.

Replacement of the valve seat and filter assembly in the P/N 801333-01, 801333-02 and 801333-03 Body and Gage Assemblies used on P/N 801307-00 through 801307-08 Stationary Cylinder Assemblies prior to S/N 6500, shall be accomplished using the following procedure. This procedure describes the steps necessary to remove the seat retainer (P/N 10001991) and the seat assembly (P/N 801417-00) and their replacement with seat assembly (P/N 801417-01) which is both removable and replaceable. This procedure also calls attention to the addition of a stem chamfer which should be added to all units prior to S/N 6500.

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#### 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL



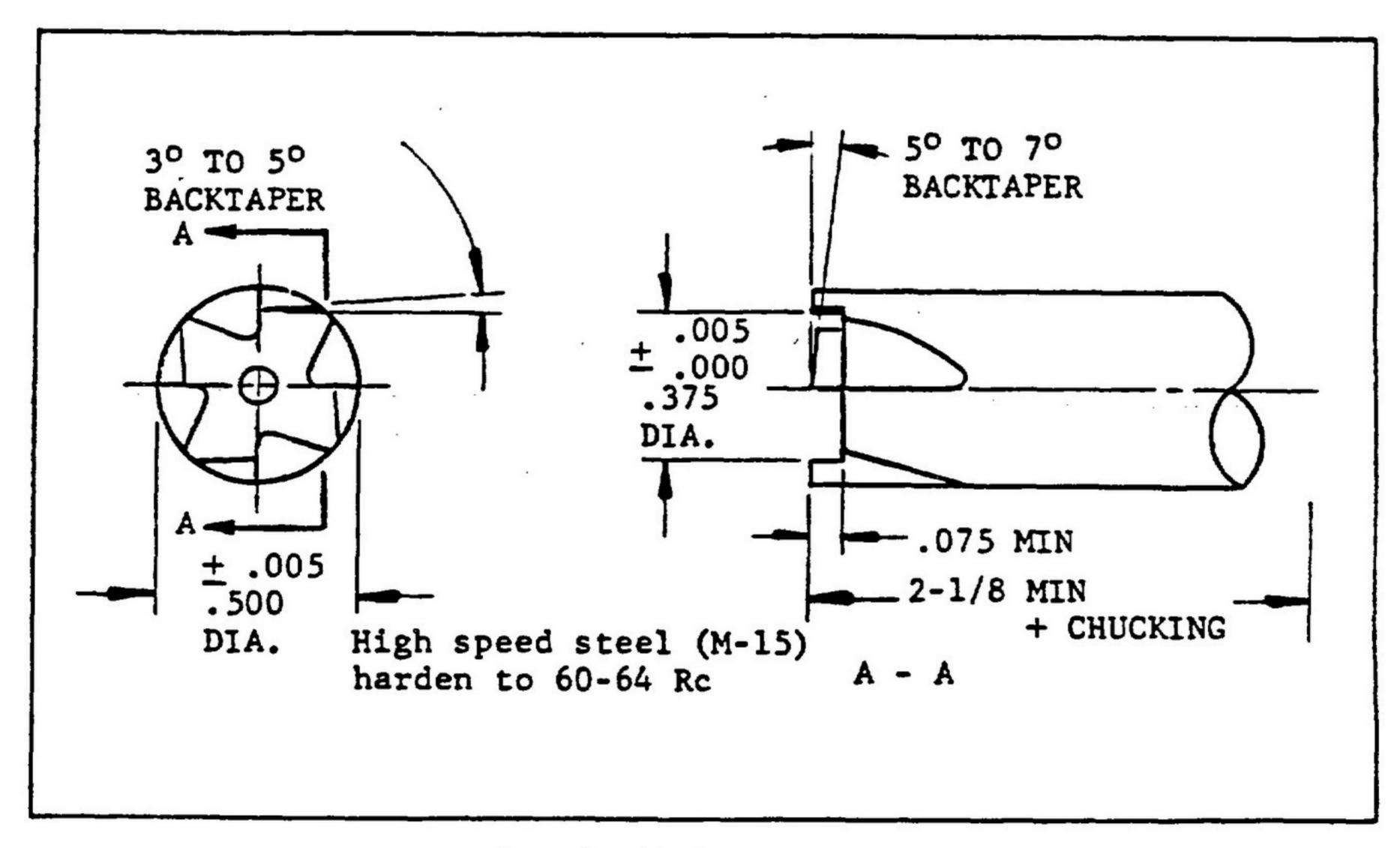
#### Stem Rework Figure 601

- A. Perform disassembly, steps 1. through 3.G. inclusive described in this ATA manual.
- B. Add chamfer to stem (21, IPL figure 3) in location noted in figure 601.

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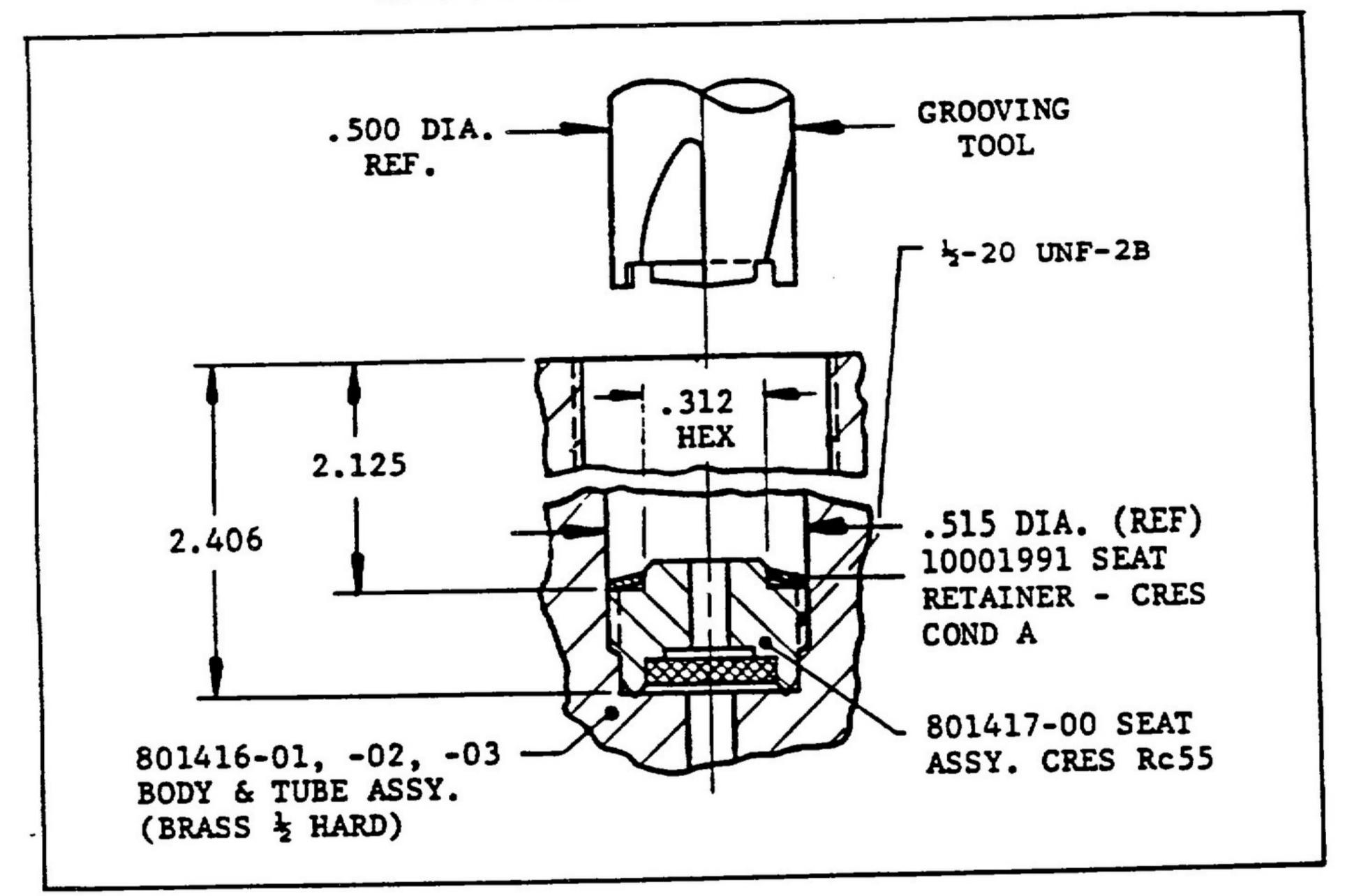
#### BO1307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

- C. Insert a 5/16" deep socket (SNAP-ON 5/16 STM 10 or equivalent) to engage hex of seat. Grind hex end of socket square to provide maximum engagement.
- D. Tap socket with mallet or hammer to both flatten seat retainer (P/N 10001991) and to achieve maximum engagement of socket on seat hex.
- E. Remove seat assembly, turning counterclockwise.
- F. If the seat cannot be removed using steps C. through E. above, it will be necessary to remove P/N 10001991 Seat Retainer (not illustrated in this manual) by machining in order to provide sufficient engagement of 5/16" hex socket and the seat assembly.
  - (1) Prepare a tool similar to that shown in figure 602.
  - (2) Fixture valve body in a vertical milling machine.



Grooving Tool Figure 602

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Valve Rework Figure 603

- (3) Machine carefully so that only the seat retainer is removed. Use figure 603 as a guide.
- (4) After seat retainer has been removed, remove the seat and filter assembly using a 5/16" deep socket.
- (5) After removal of the seat and filter assembly, inspect the valve body internal threads. The 1/2-20 UNF-2B thread shall be full to within 0.050", or one thread pitch of bottom. Chase thread with bottoming tap if required.
- (6) Clean body and tube assembly per Cleaning, step 2.
- G. Insert P/N 801417-01 Seat and Filter Assembly and torque to 240 pound-inches (27.1 N.m).

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## BO13D7 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

#### AS SEMBLY

NOTE: Table 701 lists the consumable materials required for reassembly. Equivalent materials may be used except for oxygen lubricant.

NOTE: Refer to the "EFFECT CODE" column of the Group Assembly Parts List for the parts applicable to the part number valve assembly being reassembled. Disregard instructions concerning parts that are not used on the valve assembly being reassembled.

MATERIAL	DESCRIPTION	MANUFACTURER*	REFER TO PARA.
Sealing Tape	Parmacel Tape No. 412	V99742	3
Paint	Temp-Alarm	V82682	1.T
Loctite	Locite, Grade A	<b>V</b> 05972	1.B(1), (2), 1.M
Oxygen Lubricant	Krytox 240 AC	V18873	2.A(2), 2.B(2), 2.C(2), 2.D(2), 2.E(2), 2.F(2), 2.G(2), 2.H(2), 2.J(2)
Lockwire	MS20995C20		1.L, 2.A(4), 2.C(4), 2.D(4), 3.E(4), 2.F(4), 2.G(4), 2.H(4), 2.J(4)

\*Refer to Illustrated Parts, paragraph 1.D for Vendor's Codes.

List of Consumable Materials for Assembly Table 701

### IIIP

- 1. Assemble the 801333 Body and Gage Assemblies as follows (see IPL figure 3).
  - A. Torque filter assembly (38) into body and tube assembly (39A, 4DA, or 41A) per Table 801.
  - B. Reassemble cap assembly (32 through 37) as follows:
    - (1) Insert nipple (36) in nut (37). Place one end of cable (32) on washer (35) and attach to nipple (36) with fastener (34) and screw (33). Apply a coat of Loctite to threads of screw (33) prior to assembly.
    - (2) Slip spacer (31) through loop in cable (32) and attach to body and tube assembly (39A, 40A, or 41A) using fastener (30), and screw (28) after the body and gage assembly has been installed in cylinder (17, IPL figure 1); apply Loctite to threads of the screw prior to assembly.
  - C. Torque seat and filter assembly (23A, IPL figure 3) into body and tube assembly (39A, 40A, or 41A) per Table 801.
  - D. Place bearing (25) in stem (21), then install ball (24) after sparingly applying a wipe coat of Krytox to the ball.
  - E. Attach tip and poppet assembly (22) to stem (21) with pin (23) if it was disassembled.
  - F. Drop washer (20) into body and tube assembly (39A, 40A, or 41A), then slide retainer (19) over stem (21), noting carefully proper installation direction from IPL figure 3.
  - G. Install seal (18) using kit (42) and instructions contained in the kit, if it was removed during disassembly.
  - H. Slide guide (17) over stem (21).
  - J. Install components assembled in steps (D) through (G) into body and tube assembly (39A, 40A, or 41A) until they bottom.

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- K. Torque sleeve (16) into body and tube assembly (39A, 4DA, or 41A) per Table 801 after applying a wipe coat of Krytox to 5/16-24 threads of stem (21).
- L. Thread retainer (15) onto body and tube assembly (39A, 40A, or 41A). Lockwire the retainer to the body and tube assembly per applicable instructions on MS33540.
- M. Apply a coat of Loctite to threads on tip of stem (21). Slide handle (12) onto stem (21) and retain in place with washer (14) and nut (13).
- N. Install plate (11) in handle (12).
- P. Thread guard (10) onto body and tube assembly (39A, 40A, or 41A), then place one ring (7), one packing (8), ring (9), second packing (8) and second ring (7) onto gage (4) stem.
- R. Mount gage (4) on body and tube assembly (39A, 4DA, or 41A) using washer (6) and screws (5).
- S. Test in accordance with Testing, steps 2 through 5.
- T. Cover screw (5) heads with Temp-Alarm paint.
- 2. Assemble the 801308 Oxygen Valve Assemblies as follows (see IPL figure 2).
  - CAUTION: THE TORQUE VALUES LISTED IN TABLE BO1 SHALL BE STRICTLY ADHERED TO WHEN INSTALLING RETAINERS. TORQUE VALVES DEPEND ON THE TYPE OF SAFETY DISC BEING INSTALLED.
  - A. Reassemble outlet assembly (63 through 67) as follows:
    - (1) Position disc (66 OR 66A) and gasket (67) into retainer (65).
    - (2) Apply a wipe coat of Krytox to exposed surface of gasket (67).
    - (3) Thread retainer (65) into body and gage assembly (40) using driver (1 or 3, figure 902) and torque per Table 801.

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#### 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

- (4) Position insert (64, IPL figure 2) in nut (63) and thread the nut into body and gage assembly (40). Lockwire the nut to the body and gage assembly per applicable instructions of MS33540.
- B. Reassemble outlet assembly (59 through 61) as follows:
  - (1) Position disc (60 or 60A) and gasket (61) in plug (59).
  - (2) Apply a wipe coat of Krytox to exposed surface of gasket (61).
  - (3) Thread plug (59) into body and gage assembly (40).
- C. Reassemble outlet assembly (51 through 57) as follows:
  - (1) Position disc (56 or 56A) and gasket (57) into retainer (55).
  - (2) Apply a wipe coat of Krytox to exposed surface of gasket (57).
  - (3) Thread retainer (55) into body and gage assembly (40) using driver (1 or 3, figure 902) and torque per Table 801.
  - (4) Position insert (54, IPL figure 2) in nut (53) and thread nut (53) into body and gage assembly (40). Lockwire the nut to the body and gage assembly per applicable instructions of MS33540.
  - (5) Secure cap assembly (51) to nut (53) with screw (52). Thread cap assembly (51) onto end of nut (53) after completion of Testing.
- D. Reassemble outlet assembly (45 through 49) as follows:
  - (1) Position disc (48 or 48A) and gasket (49) into retainer (47).
  - (2) Apply a wipe coat of Krytox to exposed surface of gasket (49).
  - (3) Thread retainer (47) into body and gage assembly (40) using driver (1 or 3, figure 902) and torque per Table 801.

Apr 30/85

## SOUT

- (4) Position insert (46, IPL figure 2) in nut (45) and thread nut (45) into body and gage assembly (40). Lockwire the nut to the body and gage assembly per applicable instructions of MS33540.
- E. Reassemble outlet assembly (35 through 39) as follows:
  - (1) Position disc (38 or 38A) and gasket (39) into retainer (37).
  - (2) Apply a wipe coat of Krytox to exposed surface of gasket (39).
  - (3) Thread retainer (37) into body and gage assembly (40), using driver (1 or 3, figure 902) and torque per Table 801.
  - (4) Position insert (36, IPL figure 2) into nut (35) and thread nut (35) into body and gage assembly (40). Lockwire the nut to the body and gage assembly per applicable instructions of MS33540.
- F. Reassemble outlet assembly (27 through 33) as follows:
  - (1) Position disc (32 or 32A) and gasket (33) into retainer (31).
  - (2) Apply a wipe coat of Krytox to exposed surface of gasket (33).
  - (3) Thread retainer (31) into body and gage assembly (40) using driver (1 or 3, figure 902) and torque per Table 801.
  - (4) Position insert (30, IPL figure 2) in nut (29) and thread nut (29) into body and gage assembly (40). Lockwire the nut to the body and gage assembly per applicable instructions of MS33540.
  - (5) Secure cap assembly (27) to nut (29) with screw (28). Thread cap assembly onto end of nut (29) after completion of Testing.
- G. Reassemble outlet assembly (19 through 25) as follows:
  - (1) Position disc (24 or 24A) and gasket (25) into retainer (23).

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- (2) Apply a wipe coat of Krytox to exposed surface of gasket (25).
- (3) Thread retainer (23) into body and gage assembly (40) using driver (1 or 3, figure 902) and torque per Table 801.
- (4) Position insert (22, IPL figure 2) in nut (21) and thread nut (21) into body and gage assembly (40). Lockwire the nut to the body and gage assembly per applicable instructions of MS33540.
- (5) Secure cap assembly (19) to nut (21) with screw (20). Thread cap assembly onto end of nut (21) after completion of Testing.
- H. Reassemble outlet assembly (13 through 17) as follows:
  - (1) Position disc (16 or 16A) and gasket (17) into retainer (15).
  - (2) Apply a wipe coat of Krytox to exposed surface of gasket (17).
  - (3) Thread retainer (15) into body and gage assembly (40) using driver (1 or 3, figure 902) and torque per Table 801.
  - (4) Position insert (14, IPL figure 2) into fitting (13) and thread fitting (13) into body and gage assembly (40). Lockwire the fitting to the body and gage assembly per applicable instructions of MS33540.
- J. Reassemble outlet assembly (7 through 11) as follows:
  - (1) Position disc (10 or 10A) and gasket (11) into retainer (9).
  - (2) Apply wipe coat of Krytox to exposed surface of gasket (11).
  - (3) Thread retainer (9) into body and gage assembly (40) using driver (1 or 3, figure 902) and torque per Table 801.

### III

## 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

- (4) Position insert (8, IPL figure 2) in nut (7) and thread nut (7) into body and gage assembly (40). Lockwire the nut to the body and gage assembly per applicable instructions of MS33540.
- 3. Assemble the 801307 Series Stationary Cylinder Assembly as follows (see IPL figure 1).
  - NOTE: Use sealing tape on all except the first thread of valves prior to mating with cylinders. Wrap no more than three turns of tape on threads. Wrap tape in direction of thread spiral; trim off excess tape. Tape shall not extend beyond first thread.
  - A. Secure plate (10) to cylinder (17).
  - B. Thread appropriate valve (11) into cylinder (17) and torque per Table 801.
  - C. Apply label (16) to cylinder (17) in line with gage (4, IPL figure 3).
- 4. Storage Instructions
  - A. Seal all ports to prevent foreign matter from entering the valve. Store in sealed polyethylene or polyvinyl bags.
  - B. Do not use any preservative coating on the cylinder assemblies.
  - C. Charge cylinders until a pressure indication is available (150 psi minimum).

Apr 30/85

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#### BD1307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

#### FITS AND CLEARANCES

1. Table 801 presents the torque values necessary to assemble the unit.

UNIT	TORQUE (NEWTON METERS)				
Valve (11, IPL figure 1) Retainer (9, IPL figure 2) Retainer (15, IPL figure 2) Retainer (23, IPL figure 2) Retainer (31, IPL figure 2) Retainer (37, IPL figure 2) Retainer (47, IPL figure 2) Retainer (55, IPL figure 2) Retainer (65, IPL figure 2) Seat and Filter Assy (23A,	150 foot-pounds (203.4)  *275/375 pound-inches (31/42) max.  240 pound-inches (31/42) max.  240 pound-inches (1.35)  160 pound-inches (1.35)  160 pound-inches (18.1)  60 pound-inches (6.8)				
*Torque retainer to 275 pound-inches (31 N.m) maximum when installing disc, P/N 10003742 (silver) or to 375 pound-inches (42.3 N.m) maximum when installing disc, P/N 10006001 (bronze).					

Assembly Torque Values
Table 801

## 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

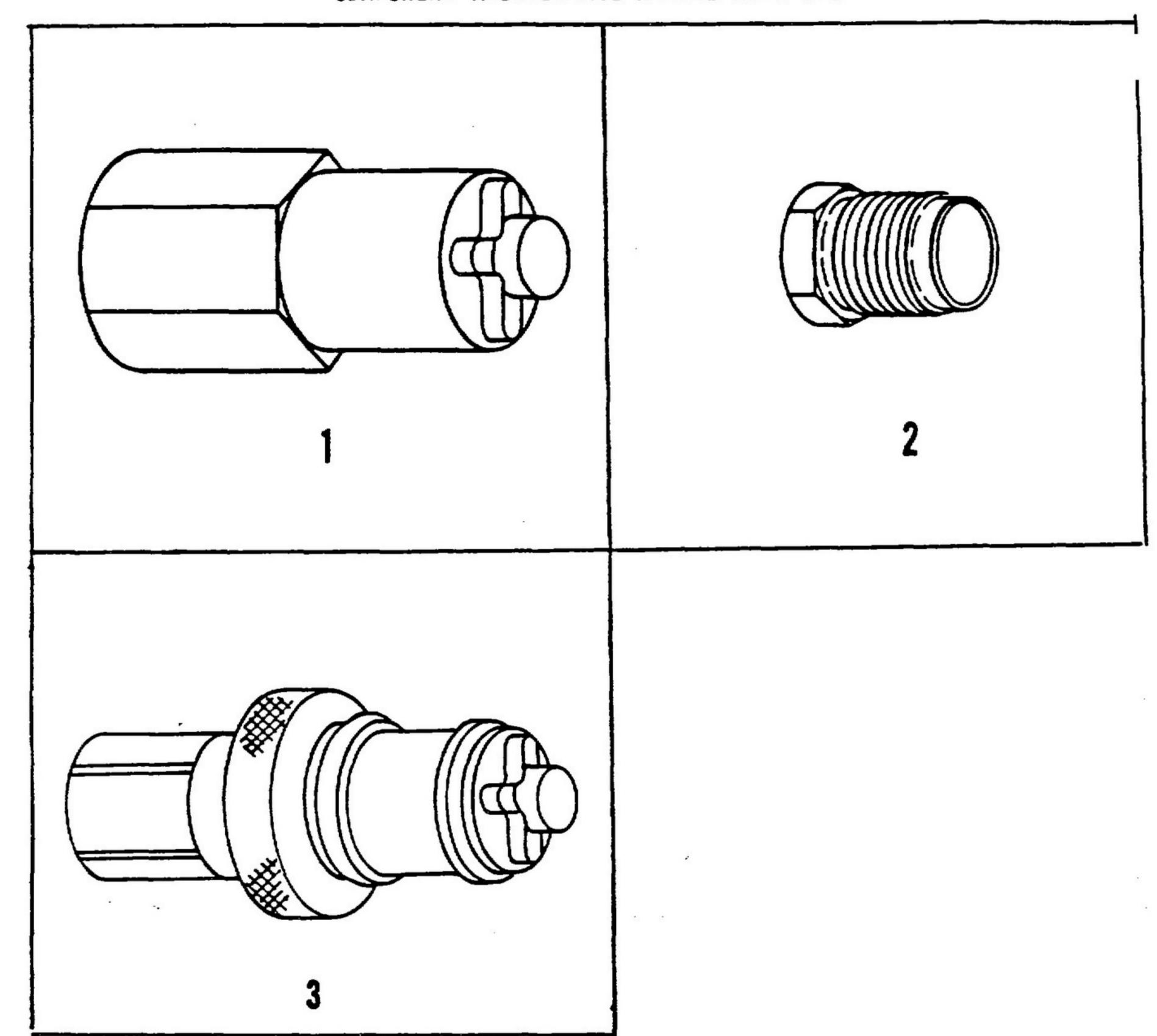
#### SPECIAL TOOLS, FIXTURES AND EQUIPMENT

 All special tools, fixtures and equipment required to overhaul the cylinder and valve assemblies are listed in figure 901 and illustrated in figure 902. Equivalent substitutes may be used.

ITEM NO.	PART NUMBER	PART NAME	APPLICATION
	10850-T91-3	Driver	Used to install/remove retainers (9, 15, 23, 31, 37, 47, 55 and 65, IPL figure 2) in valve assemblies using discs (10, 16, 24, 32, 38, 48, 56, 60 and 66)
2	801333-758-1	Test Plug	Used during proof pressure testing
3	2786-S52-1	Driver	Used to install/remove retainers (9, 15, 23, 31, 37, 47, 55 and 65, IPL figure 2) in valve assemblies using discs (10A, 16A, 24A, 32A, 38A, 48A, 56A, 60A and 66A)

NOTE: All special tools listed are manufactured by Scott Aviation, Lancaster, New York.

Special Tools List Figure 901



Special Tools Figure 902

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#### 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

#### ILLUSTRATED PARTS LIST

- 1. This Illustrated Parts List lists and describes the parts for the 801307 series Stationary Cylinder Assemblies.
  - A. The Illustrated Parts List consists of parts listings and completely indexed drawings. The particular cylinder valves and body and gage assemblies are followed immediately by their component parts, properly indented thereunder, to show their relationship to the assembly.
  - B. The quantities listed in the "UNITS PER ASSY" column are, in the case of assemblies, the total quantity used per cylinder assembly at the location indicated, while the component parts indented under the assemblies are the quantity used per assembly. The quantities specified, therefore, are not necessarily the total used per cylinder assembly.
  - C. The part numbers listed in the "PART NUMBER" column are Scott Aviation part numbers except standard parts, which are listed by "MS" and "AN" part numbers, and vendor items, which are listed by vendor part numbers.
  - D. A six place code, following the description of a part, indicates the manufacturer of that part. Standard parts and parts carried under Scott part numbers have no vendor's code. The following list contains the codes, and names and addresses of manufacturers supplying items or articles for the cylinder assemblies. This listing includes the vendor codes presented in Tables 101, 401, 601 and 701.

#### VENDOR'S CODE

CODE

NAME AND ADDRESS

V05972

Loctite Corporation Newington, Connecticut

**VD7098** 

Union Carbide Corporation

Linde Division Tonawanda, New York

V09055

Bal-Seal Engineering Company

LaHabra, California

### IIII

#### 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

#### VENDOR'S CODE (Continued)

CODE	NAME AND ADDRESS
V18873	E.I. DuPont DeNemours & Company, Inc. Wilmington, Delaware
V44389	Oakite Products, Inc. Berkely Heights, New Jersey
V70829	J.T. Baker Chemical Company North Phillipsburg, New Jersey
V71984	Hooker Chemical Corporation Niagara Falls, New York
V72658	Allied Chemical Corporation Morristown, New Jersey
V82682	Tempil Div. of Big Three Industries South Plainfield, New Jersey
V99742	Johnson and Johnson, Inc. Permacel Division New Brunswick, New Jersey

- 2. How to use this Illustrated Parts List
  - A. If neither the part number nor the nomenclature is known, the part can be found by comparison with the exploded view illustration. When located on the illustration, the index number will refer to the line in the Illustrated Parts List with the part number and the nomenclature.
- 3. How to determine the applicable "EFFECT CODE"
  - A. Parts used on only one part number cylinder assembly (see IPL figure 1) are indicated by a letter symbol immediately following the description of a part in the "EFFECT CODE" column. An explanation of the letter symbols used is outlined below. In cases when the "EFFECT CODE" column has been left blank, parts listed are common to all cylinder assemblies.

### IIOR

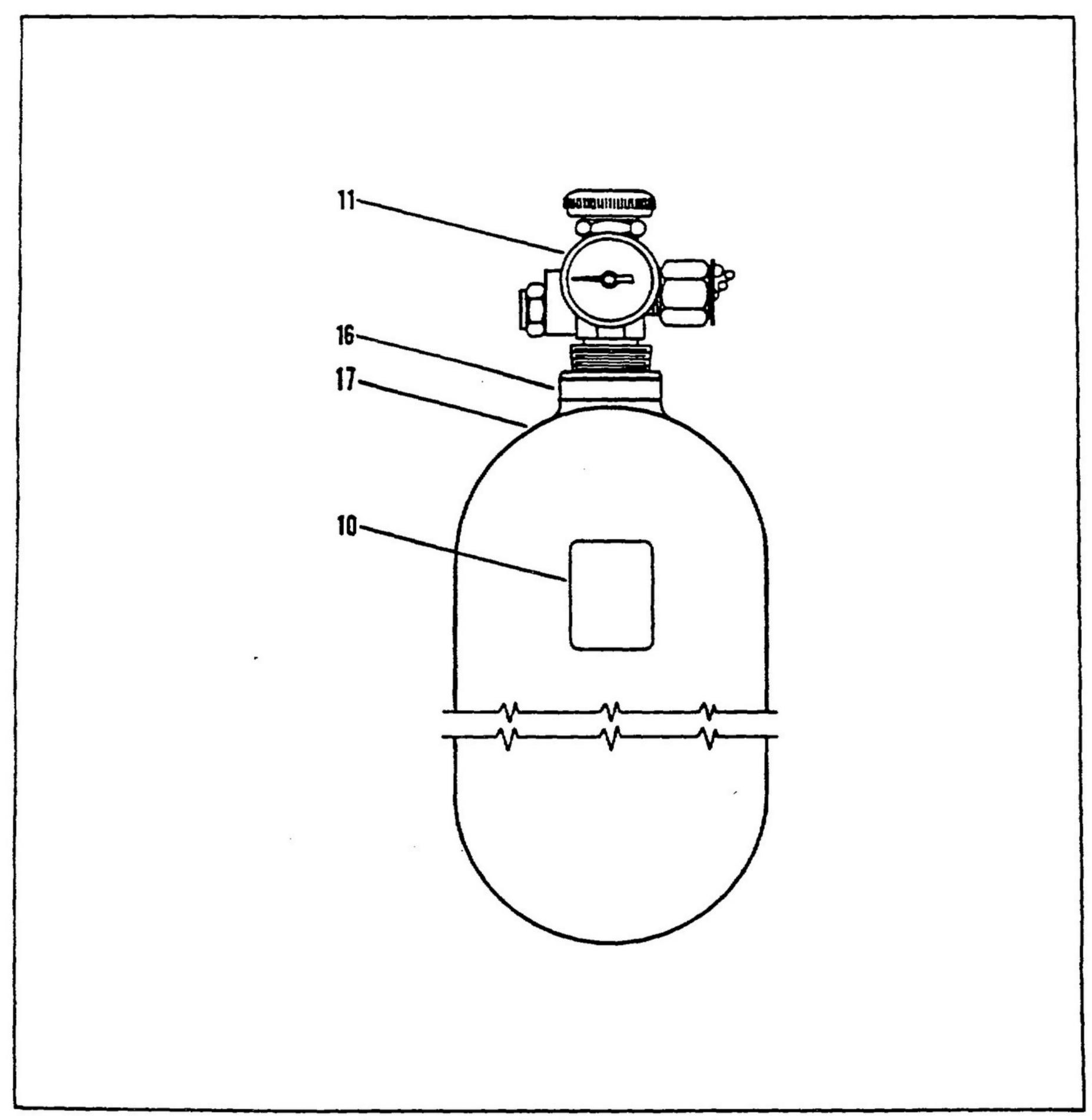
#### 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL

B. Parts which at the present time have no usage, but are available for installation on the cylinder assemblies are denoted with "N/USG" in the "EFFECT CODE" column.

PART NUMBER	EFFECT	CODE
801307-00	A	
801307-01	В	
801307-02	C	
801307-03	D	
801307-04	E	
801307-05	F	
801307-06	G	
801307-07	H	
801307-08	J	
801307-09	K	
801307-10	L	
801307-20	M	
801307-21	N	
801307-22	P	
801307-23	R	
801307-24	S	
801307-25	T	

## SWII

#### 8D13D7 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL



Stationary Cylinder Assembly Figure 1

35-21-57

Page 1004 Apr 1/82

### III

200			······································		
				EFF	UNITS
FIG.	PART NUMBER	AIRLINE	NOMENCLATURE	CODE	PER
ITEM	TAKT NOTICE	STOCK NO.	1234567		ASSY
1-1	801307-00		CYLINDER ASSEMBLY -	A	RF
	001307 00		STATIONARY		
-2	801307-01		CYLINDER ASSEMBLY -	В	RF
	00150. 0.		STATIONARY		
-3	801307-02		CYLINDER ASSEMBLY -	C	RF
,	001507 02		STATIONARY		
-4	801307-03		CYLINDER ASSEMBLY -	D	RF
-4	801307-03		STATIONARY		
	P04707_0/		CYLINDER ASSEMBLY -	E	RF
-5	801307-04		STATIONARY		"
	004707.05		CYLINDER ASSEMBLY -	F	RF
-6	801307-05			ľ	<b>n</b> '
_			STATIONARY		RF
-7	801307-06		CYLINDER ASSEMBLY -	G	Kr
_			STATIONARY	.,	0.5
-8	801307-07		CYLINDER ASSEMBLY -	Н	RF
			STATIONARY	1.	25
-9	801307-08		CYLINDER ASSEMBLY -	J	RF
_			STATIONARY		25
-94	801307-09		CYLINDER ASSEMBLY -	K	RF
_			STATIONARY	1.	25
<b>-9</b> 8	801307-10		CYLINDER ASSEMBLY -	L	RF
			STATIONARY		DE
-90	801307-20		CYLINDER ASSEMBLY -	M	RF
_			STATIONARY	١.,	0.5
-9D	801307-21		CYLINDER ASSEMBLY -	N	RF
		1	STATIONARY		ne
-9E	801307-22	1	CYLINDER ASSEMBLY -	1	RF
			STATIONARY		
-9F	801307-23		CYLINDER ASSEMBLY -	R	RF
			STATIONARY		
-9G	801307-24	1	CYLINDER ASSEMBLY	S	RF
			STATIONARY	_	
-9H	801307-25		CYLINDER ASSEMBLY -	T	RF
			STATIONARY		
10	10003070		. PLATE - ID	A-S	1
-1 DA	10005457		. PLATE - ID	A-S	1
			(NON-BOEING UNITS)	_	
-10B	10005672		. PLATE -ID	T	1
11	801308-13		. VALVE - OXYGEN	C	1
			(SEE FIGURE 2 FOR		
			BREAKDOWN)		
-12	801308-15	1	. VALVE - OXYGEN	H	1
			(SEE FIGURE 2 FOR		
			BREAKDOWN)		
-13	801308-22		. VALVE -OXYGEN	BJ	1
			(SEE FIGURE 2		
			FOR BREAKDOWN)	1	
	<u> </u>	<u> </u>			1

<sup>-</sup> ITEM NOT ILLUSTRATED

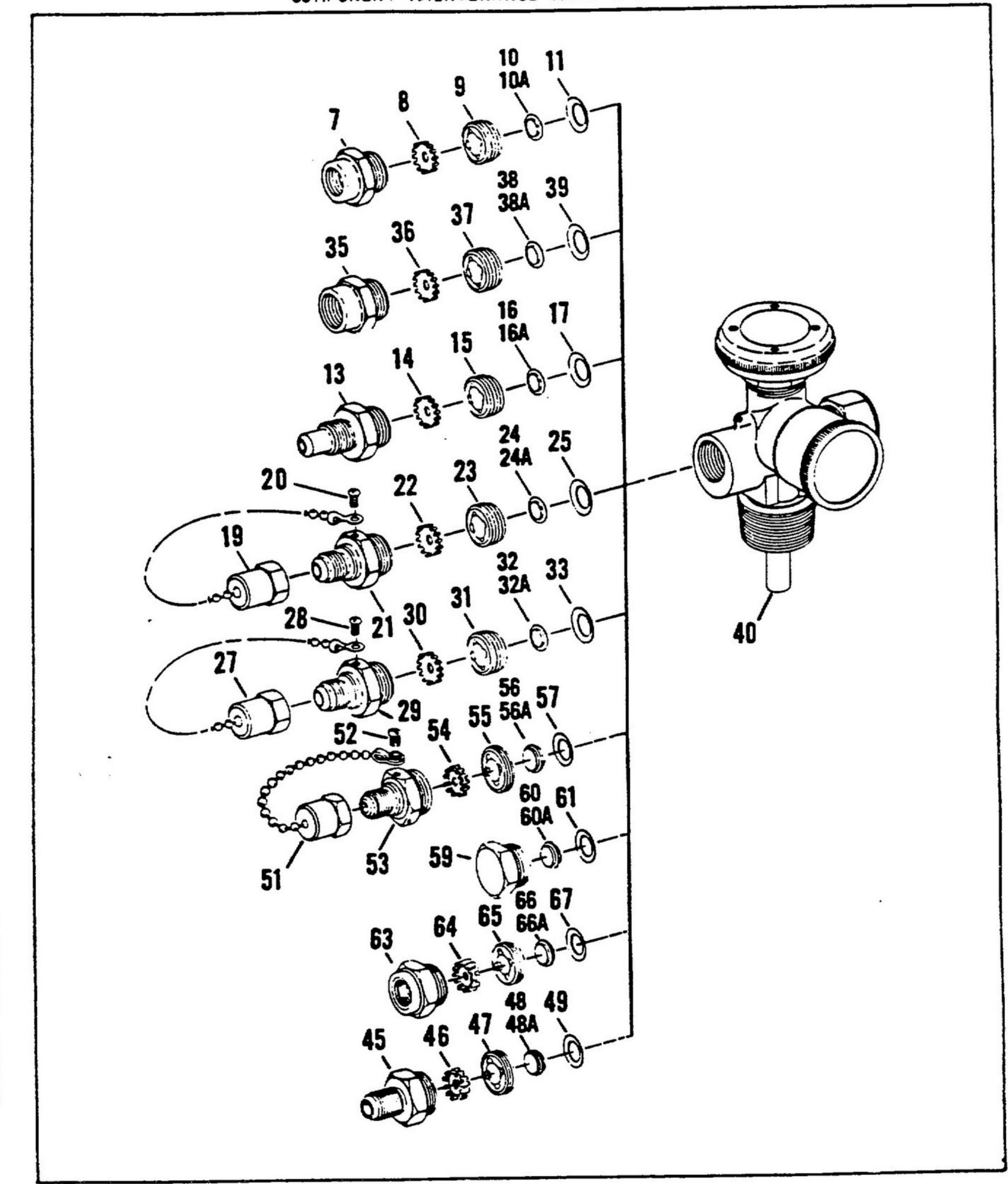
### mm

FIG. ITEM	PART NUMBER	AIRLINE STOCK NO.	NOMENCLATURE 1234567	CODE	UNITS PER ASSY
1-14	801308-24		. VALVE - OXYGEN (SEE FIGURE 2	DF	1
-15	801308-31		FOR BREAKDOWN)  VALVE - OXYGEN  (SEE FIGURE 2	AEG	1
-15A	801308-43		FOR BREAKDOWN) . VALVE - OXYGEN (SEE FIGURE 2	K	1
-158	801308-19		FOR BREAKDOWN)  VALVE - OXYGEN  (SEE FIGURE 2  FOR BREAKDOWN)	LR	1
-15c	801308-20		. VALVE - OXYGEN  (SEE FIGURE 2  FOR BREAKDOWN)	MNPS	1
16 17	10003753 10003367		. LABEL . CYLINDER	ABCD HKRS	1
-18 -19 -20	10003365 10003366 10005002		. CYLINDER . CYLINDER . CYLINDER	E FGJLP N	1 1 1
-21 -22	10005003		. CYLINDER . CYLINDER	M	1
		•			

<sup>-</sup> ITEM NOT ILLUSTRATED

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### 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL



Oxygen Valve Figure 2

35-21-57

Page 1007 Apr 30/85

## SOUT

			<del>,</del>			
		ATOL THE		EFF	UNITS	
FIG.	PART NUMBER	AIRLINE	NOMENCLATURE	CODE	PER	
ITEM		STOCK NO.	1234567		ASSY	
2-1	801308-13		VALVE - OXYGEN (SEE	С	RF	
- 1			ITEM 11, FIGURE 1, FOR			
			NEXT HIGHER ASSEMBLY)			
-2	801308-15		VALVE - OXYGEN (SEE	Н	RF	
- 1			ITEM 12, FIGURE 1, FOR			
			NEXT HIGHER ASSEMBLY)			
-3	801308-22		VALVE - OXYGEN (SEE	BJ	RF	
			ITEM 13, FIGURE 1, FOR			
			NEXT HIGHER ASSEMBLY)			
-4	801308-24		VALVE - OXYGEN (SEE	DF	RF	
-	001300 24		ITEM 14, FIGURE 1, FOR			
			NEXT HIGHER ASSEMBLY)		1	
-5	801308-31		VALVE - OXYGEN (SEE	AEG	RF	
ر-	001300-31			AEG	Kr	
	•		ITEM 15, FIGURE 1, FOR			
-5A	901709_/7		NEXT HIGHER ASSEMBLY)	_	DE	
-24	801308-43		VALVE - OXYGEN (SEE	K	RF	
			ITEM 15A, FIGURE 1, FOR			
-5B	901709-10		NEXT HIGHER ASSEMBLY)		200	
-28	801308-19		VALVE - OXYGEN (SEE	LR	RF	
			ITEM 15B, FIGURE 1, FOR			
-50	004700.00		NEXT HIGHER ASSEMBLY)			
-5C	801308-20		VALVE - OXYGEN (SEE	MNPS	RF	
			ITEM 15C, FIGURE 1, FOR			
	004457.00		NEXT HIGHER ASSEMBLY)			
-6	801153-00		. OUTLET ASSEMBLY	AEG	] ]	
7	10002536		NUT (THREAD PER	AEG	1	
	4555 66		MS33649-5)			
8	6572-00		INSERT	AEG	1	
9	2786-00		RETAINER	AEG	1	
10	10003742		DISC (SILVER) (ALTERNATE	AEG	1	
			FOR ITEM 10A)			
10A	10006001		DISC (BRONZE) (ALTERNATE	AEG	1	1
			FOR ITEM 10)			
11	6555-00		GASKET	AEG	1	
-12	800843-00		. OUTLET AS SEMBLY	BJ	1	
13	10001581		FITTING (5/8-20 UN)	BJ	1	
14	6572-00		INSERT	BJ	1	1
15	2786-00		RETAINER	BJ	1	
16	10003742		DISC (SILVER) (ALTERNATE	BJ	1	
			FOR ITEM 16A)			
16A	10006001		DISC (BRONZE) (ALTERNATE	BJ	1	1
			FOR ITEM 16)	1		
17	6555-00		GASKET	BJ	1	
					1	J

<sup>-</sup> ITEM NOT ILLUSTRATED

## SWU

			CHARCE PAROAL WITH ITE			
				EFF	UNITS	
FIG.	PART NUMBER	AIRLINE	NOMENCLATURE	CODE	PER	
ITEM		STOCK NO.	1234567		ASSY	
2-18	22606-01		. OUTLET AS SEMBLY	CK	1	ĺ
19	11272-00		CAP ASSEMBLY	CK	1	
			ATTACHING PARTS			1
20	MS35206-213		SCREW	CK	1	R
			*			
21	22605-03		NUT (THREAD PER	CK	1	
			MS33656-5)			ĺ
22	6572-00		INSERT	CK	1.	1
23	2786-00		RETAINER	CK	1	į
24	10003742		DISC (SILVER) (ALTERNATE	CK	1	
			FOR ITEM 24A)			
24A	10006001		DISC (BRONZE) (ALTERNATE	CK	1	R
			FOR ITEM 24)			i
25	6555-00		GASKET	CK	1	
-26	800844-D1		. OUTLET ASSEMBLY	DF	1	
27	11272-01		CAP ASSEMBLY	DF	1	
			ATTACHING PARTS			
28	MS35206-213		SCREW	DF	1	R
29	10001412		NUT (TUDEAD DED			
24	10001612		NUT (THREAD PER	DF	7	
70	4572-00		MS33656-5)			į
30	6572-00		INSERT	DF	1	
31 32	2786-00 10003742		RETAINER	DF	]	
32	10003742		DISC (SILVER) (ALTERNATE	DF	7	1
32A	10006001		FOR ITEM 32A)			
327	10000001		DISC (BRONZE) (ALTERNATE	DF	1	R
33	6555-00		FOR ITEM 32)			
-34	10722-00		GASKET . OUTLET ASSEMBLY	DF H	4	
35	10723-00		NUT (1/8 ANPT)	H	1	
36	6572-00		INSERT		1	
37	2786-00		RETAINER	H	4	
38	10003742		DISC (SILVER) (ALTERNATE	н	4	
			FOR ITEM 38A)	n		
384	10006001		DISC (BRONZE) (ALTERNATE	н	1	R
			FOR ITEM 38)		•	, ,
39	6555-00		GASKET	н	1	
40	801333-01		. BODY AND GAGE ASSY	CHLR	1	
			(SEE FIGURE 3 FOR			
	1		BREAKDOWN)	1		
-41	801333-02		. BODY AND GAGE ASSY	BJDF	1	
			(SEE FIGURE 3 FOR	MNPST		
	•		BREAKDOWN)			
-42	801333-03		. BODY AND GAGE ASSY	AEG	1	
			(SEE FIGURE 3 FOR			
	1		BREAKDOWN			
İ	•					
					<u> </u>	j

<sup>-</sup> ITEM NOT ILLUSTRATED

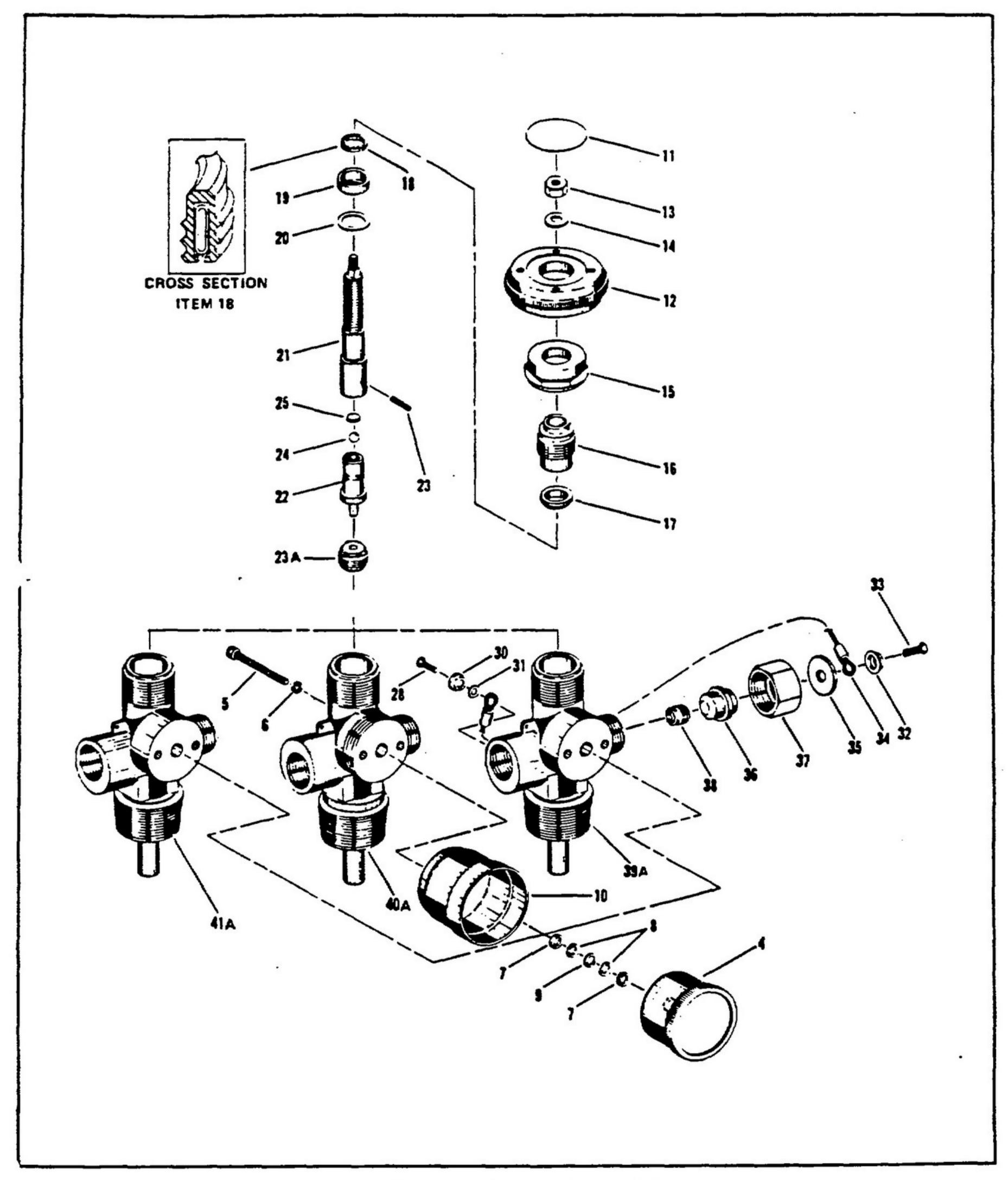
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FIG.		AIRLINE		CODE	UNITS	
ITEM	PART NUMBER	STOCK NO.	NOMENCLATURE 1234567	CODE	PER	
3-/7	904777-D/					
2-43	801333-04		. BODY AND GAGE ASSY (SEE FIGURE 3 FOR	K	•	
			BREAKDOWN)			
-44	22608-02		. OUTLET ASSEMBLY	LR	4	
45	22759-00		NUT (THREAD PER	LR	1	
77	22139-00		MS33656-E5)		'	
46	6572-00		INSERT	LR	1	
47	2786-00		RETAINER	LR	1	
48	10003742		DISC (SILVER) (ALTERNATE	LR	1	
, ,			FOR ITEM 48A)		, l	
48A	10006001		DISC (BRONZE) (ALTERNATE	LR	1	
			FOR ITEM 48)			
49	6555-00		GASKET	LR	1	
-50	800844-00		. OUTLET ASSEMBLY	MNPST	1	
51	11272-00		CAP ASSEMBLY	MNPST	1	
- 1			ATTACHING PARTS			
52	MS35206-213		SCREW	MNPST	1	1
53	10001611		NUT (THREAD PER	MNPST	1	
			MS33656-E4)		_	
54	6572-00		INSERT	MNPST	1	
55	2786~00		RETAINER	MNPST	1	
56	10003742		DISC (SILVER) (ALTERNATE	MNPST	1	
			FOR ITEM 56A)			1
56A	10006001		DISC (BRONZE) (ALTERNATE	MNPST	1	1
j			FOR ITEM 56)			
57	6555-00		GASKET	MNPST	1	
-58	2814-00		. OUTLET ASSEMBLY	N/USG	1	
. 59	21077-00		PLUG	N/USG	1	1
60	10003742		DISC (SILVER) (ALTERNATE	N/USG	1	
			FOR ITEM 60A)	1		
60A	10006001		DISC (BRONZE) (ALTERNATE	N/USG	1	1
			FOR ITEM 60)			
61	6555-00		GASKET	N/USG	1	
-62	10689-00		. OUTLET ASSEMBLY	N/USG	1	
63	2787-00		NUT (THREAD PER	N/USG	1	
			AND 10050-5)			
64	6572-00	1	INSERT	N/USG	1	
65	2786-00	ļ	RETAINER	N/USG	]	}
66	10003742		DISC (SILVER) (ALTERNATE	N/USG	1	į
44.	10004004	1	FOR ITEM 66A)			1
66A	10006001		DISC (BRONZE) (ALTERNATE	N/USG	17	
67	4555-00		FOR ITEM 66)	NAMES	4	
01	6555-00		GASKET	N/USG	1.	
			<b>!</b>			
			1		1	
j.		i .	1	1	1	1

<sup>-</sup> ITEM NOT ILLUSTRATED

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#### 801307 SERIES COMPONENT MAINTENANCE MANUAL WITH IPL



Body and Gage Assembly Figure 3

35-21-57

Page 1011 Apr 1/82

### TIME

			ENANCE PANDAL WITH IPL	<del></del>	
57.5		4701745		EFF	UNT
FIG.	PART NUMBER	AIRLINE	NOMENCLATURE	CODE	PE.
ITEM		STOCK NO.	1234567		ASSY
3-1	801333-01		BODY AND GAGE ASSY	CHLR	RF
			(SEE ITEM 40, FIGURE 2		
			FOR NHA)		
-2	801333-02		BODY AND GAGE ASSY	BDFJ	RF
			(SEE ITEM 41, FIGURE 2	MNPST	
			FOR NHA)		
-3	801333-03		BODY AND GAGE ASSY	AEG	RF
			(SEE ITEM 42, FIGUIRE 2		
			FOR NHA)		
-3A	801333-04		BODY AND GAGE ASSY	K	RF
			(SEE ITEM 43, FIGURE 2		
			FOR NHA)		
4	21217-00		. GAGE	1	1
			ATTACHING PARTS	Ì	
5	AN50006-22	•	. SCREW	BDJF	2
				MNPST	
-5A	18565-00		. SCREW	AEGC	2
				HKLRS	
6	18600-00		- WASHER		2
_					
7	22152-01		. RING		2
8	MS9068-006		. PACKING		2
9	22152-02		. RING		1
10	10001813		. GUARD	BDFJM	1
	48007746			NPST	
11	10003315		. PLATE - ID		1]
12	10003301		- HANDLE	,	1
47	A N7 / 5 C4 D		ATTACHING PARTS	Ì	
13 14	AN345C10		. NUT		1
14	AN960C1 OL		. WASHER	1	1
15	10007707		05747450		1.
16	10003307 10003313	•	RETAINER		1 4
17	10003513		. SLEEVE	-	
18	300-0116 1		. GUIDE . SEAL (VO9055)		1
19	10003579		. RETAINER		1
20	10003578		. WASHER		12
21	10003316		STEM		1
22	801418-00		. TIP AND POPPET ASSY		1
	33.4.0 00		ATTACHING PARTS		1
23	MS171432		- PIN		1
				1	1
23A	801417-01		. SEAT AND FILTER		1
			ASSY (POST SB 35-43)		
24	13194-00		- BALL		1
25	8547-00		. BEARING		1
					1

<sup>-</sup> ITEM NOT ILLUSTRATED

## SWII

		HPUNEN! HAIR!			
				EFF	UNITS
FIG.	PART NUMBER	AIRLINE	NOMENCLATURE	CODE	PER
ITEM	PARI NUMBER	STOCK NO.	1234567		ASSY
					<u> </u>
3-26	801419-00		. CAP ASSEMBLY		1
			(SUPERSEDED BY		
			801815-00>		
-27	801815-00		. CAP ASSEMBLY		1
			ATTACHING PARTS	1	
28	MS24693-C3		. SCREW		1
1 1	DELETED		· JUNEA		
29			FACTENED		
30	AN227-7		. FASTENER		
31	10004198		- SPACER		1
32	801823-00		CABLE		1
			ATTACHING PARTS		
33	MS24693-C27		SCREW		1
34	13865-1		FASTENER		1
35	10004197				
55	10004171				•
	40007744		**************************************	1	
36	10003316		NIPPLE		]
37	6121-1		NUT		1
38	801420-00		. FILTER ASSEMBLY	1	1
-39	801942-01		. BODY AND SEAT	CH	1
			AS SEMBLY (SUPER SEDED		-
	•		BY ITEM 39A)		
39A	801416-01		. BODY AND TUBE	СНК	1
	0014.007		AS SEMBLY (SUPERSEDES	LR	•
				LK	
	0040/ 0 00		ITEM 39)		
-40	801942-02		. BODY AND SEAT	BDFJ	1
			ASSEMBLY (SUPERSEDED		
1			BY ITEM 40A)	1	
40A	801416-02		. BODY AND TUBE	BDFJ	
			AS SEMBLY (SUPER SEDES	MNPST	1
			ITEM 40)		
-41	801942-03		. BODY AND SEAT	AEG	4
-41	001742-03			AEG	1
	•		AS SEMBLY (SUPERSEDED		
,	004/4/ 07		BY ITEM 41A)		
41A	801416-03		. BODY AND TUBE	AEG	1
			AS SEMBLY (SUPER SEDES		
	A.		ITEM :		
-42	801581-00 1		. KIT-: REPLACEMENT		1
			(REPLA ITEM 18)		
İ					
				1	
				1	
					]
				· · · · · · · · · · · · · · · · · · ·	1

<sup>-</sup> ITEM NOT ILLUSTRATED